# UBC REPORTS 



## Suffering For His Art

Curious student checks out expressive self-portrait by Fine Arts student Evan Lee on display at the Lasserre building. The painting was part of the exhibition "Mass Production and Consumption" held during Arts Fest, the annual showcase of student talent in the fine and performing arts at UBC. Other large canvas self-portraits were painted by third-year students Mohamed Somani, Natasha McHardy, Matilda Aslizadeh and Bill Purvis.

## Bursary addresses

 child-care accessibilityUBC's Alma Mater Society (AMS) is creating an endowment to provide financial aid for students needing child care. In referenda held last month. 78 per cent of the students voting supported the initiative, agreeing to a $\$ 3$ per year increase in student fees over the next three years. The university will provide matching funds.
Called the Mrs. Evelyn Lett ChildCare Bursary Endowment Fund. it is the largest endowment of its kind at a Canadian university.
Based on current enrolment, the endowment will total $\$ 504.000$ and generate child-care bursaries worth $\$ 33.500$ annually beginning September. 1997.
"The AMS has spent over $\$ 500.000$ in helping to build child-care facilities on campus but this in no way dealt with the issues of accessibility forstudents." said AmJohal, AMS director of administration.
"The creation of the child-care bursary endowment fund helps the AMS deal with this issue in a very real way and knock down the barriers which restrict accessibility to education.

To qualify. UBC students must be enrolled in a minimum of 18 credits, or 60 per cent of a full course load. and demonstrate financial need. A maximum of $\$ 2,000$ per child each year will be available. Children must be enrolled in a licensed day-care facility on or off campus.
The fund is named in honour of the former Evelyn Story, a UBC graduate. who. with her future husband, Sherwood Lett, was a founding member of the AMS. Together, they created the first


Martin Dee photo
A founding member of the Alma Mater Society, Evelyn Lett was guest of honour at a reception to celebrate the creation of a childcare bursary for students which will bear her name.
formal draft of the AMS constitution.
In 1916 she served as the vice-president of the Women's Undergraduate Society and provided leadership in promoting gender equality. Her efforts led to women at UBC gaining voting rights in student executive elections.
Lett is celebrating her 100th birthday this year. She was the guest of honour at a reception held Feb. 14 to celebrate the creation of the child-care bursary endowment fund.

## Broad entrance policy approved by Senate

by Gavin Wilson<br>Staff writer

UBC faculties will be able to use crite ria other than grades-such as leader ship abilities, extra-curricular activities and career-related work experience-for admitting students directly from Grade 12 in the 1996/97 academic year.

Senate approved the broad-based admission policy at its February meeting.

Programs such as rehabilitation sciences. landscape architecture, medicine and fine arts have long admitted students based on a mix of grades, interviews. portfolios and career-or program-related considerations.

However, this marks the first time programs that admit students directly from Grade 12 can use such criteria, with the exception of a recent pilot program in the Faculty of Forestry.

Applied Science will be the next faculty to offer broad-based admission standards. In next year's Calendar, Applied

## Activist, Nobel winner to receive accolade

University of British Columbia graduates Bertram Brockhouse, winner of the 1994 Nobel Prize in Physics, and community activist Rosemary Brown are among 14 distinguished individuals to be awarded honorary degrees by UBC this year.

Nominees are distinguished professionals, scholars, creative artists, public servants and others who have made significant contributions to the university community and the province, nationally or internationally. Honorary degrees will be awarded during UBC's two graduation ceremonies: Spring Congregation, May 28-31 and Fall Congregation, Nov. May
28.

Brockhouse, who finished a BA at UBC in 1947, received his Nobel Prize for work in developing neutron spectroscopy. His graduate work in physics was done at the University of Toronto and from 196284 he was a professor at McMaster University in Hamilton. Ont.

Brown earned a Bachelor of Social Work (BSW) degree from UBC in 1962 and an MSW five years later. She became the first black woman to hold a seat in a Canadian legislature when she was elected to the B.C. legislature in 1972, a

## Inside

Garden Screen
An empire's lost garden prepares to welcome visitors on computer screen

Students reach out to help build enthusiasm among youngsters
Confusing Custody
Forum: Homosexual parents have rights too argues Susan Boyd
Sinking Scales
Profile: Predicting declining fish stocks is one thing; saving them is another

## Letters

## Descent into

 sodium gloom to be avoided Editor:UBC is to be commended for the policy approach it has taken towards improving campus lighting for safety purposes (Initiatives underway to better campus safety, UBC Reports, Jan. 25). Campus planners have seen not only the need for improved lighting levels but also improved lighting quality. UBC's Lighting Master Plan provides for the use of high-quality, white. metal halide lighting on campus. This is in sharp contrast to the mediocrity which could be expected were the slightly cheaper but much less esthetically pleasing light of high pressure sodium vapour lamps used instead.

## LETTERS POLICY

UBC Reports wetcomes letters to the editor on topics relevant to the university community. Letters must be signed and include an address and phone number for verification. Please limit letters, which may be
edited for length, style and clarity, to 300 words. Deadline is 10 days edited for length, style and clarity, to 300 words. Deadline is 10 days before publication date. Submit letters in person or by mail to the UBC
Public Affairs Office, $310-6251$ Cecil Green Park Road, Vancouver B.C. Public Affairs Office, $310-6251$ Cecil Green Park Road, Vancouver B.C. V6T 121, by fax to 822-2684 or by e-mail to paula.martin@ubc.ca.

Today the campus includes a wide variety of light sources and the visual superiority of metal halide can be seen in the areas on Agricultural Road and NW Marine Drive where it has been installed. In contrast. the sodium vapour lighting used in some other areas of the campus presents a dull and threatening nighttime atmosphere. This distinc tion has not been lost on campus users as it was raised at the Your UBC campus safety forum last year. Clearly there is strong support on campus for the lighting plan's recommendation to use white metal halide lighting and the sharper vision it provides.

Unfortunately, a number of recent campus construction projects have not complied with the lighting plan with the result that the use of the depressing orange light of high
pressure sodium is growing on campus. As well, a seemingly ad hoc program of adding security lighting is spreading the sodium gloom to buildings new and old across the campus. The buildings af fected include Chemistry. Scarfe, Sedgewick Library, Geography, and even the brand new C.K. Choi building. Sodium vapour lighting has been proven to have negative effects on the education of schoolchildren; are we sure we want it on our campus?

The vision of the UBC Lighting Master Plan to improve campus safety and night-time comfort will be lost if the use of a light source, namely high pressure sodium vapour, specifically discouraged in the plan, is allowed to continue.

Ian Fisher
Vancouver

## Grad students pledge to leave lasting legacy, second to one

UBC's graduating students
ave raised more than $\$ 500,000$ have raised more than $\$ 500,000$
in pledges for their chosen class projects during the last four years through the Annual Fund's Class Act program.
"The Class Act campaign is second only to the University of Toronto's as the most successful graduating gift campaign in Canada," said Simone Camegie, who co-ordinates the campaign for UBC's Development Office. "Seventeen schools and faculties at UBC are participating this year and we hope to raise $\$ 220.000$."

The projects students pledge for reflect theirneeds and desires, rang-

## Admissions

## Continued from Page 1

 lar activities, he added. They will have to have excelled or in some way distinguished themselves.No formal limit has been set on the number of students a faculty can admit on this basis, but Senate is recommending it be no more than 15 per cent. In other changes, prospective students whose academic record may have been adversely affected by extenuating circumstances will find it easier to plead their case in future.

Application forms will now allow them to explain why disability, health problems or family situations prevented them from meeting the criteria. Previously, such students had to first be refused and then take their case to appeal.

Will noted that these changes complete an overhaul of admission requirements undertaken by Senate in conjunction with the faculties that began six years ago.
"The graduating student pledges indicate to us that students are concerned about the generations of students coming up behind them. They want to ensure that future students will have better opportunities, or at least the same opportunities, to succeed in their field of study," Carnegie said.

The recent creation of a periodical fund for the Library shows what can be achieved through
the campaign
Science students decided to create the fund as their Class Act project last year and have raised close to $\$ 30.000$ so far through the campaign.

The Class Act campaign was initiated in 1991/92 by the faculties of Dentistry, Pharmaceutical Sciences, and Medicine.
During the 1994/95 campaign, more than 1,300 students. 35 per cent of the graduating class. pledged an average amount of $\$ 166$ over three years to their faculties and schools.

## BONECRUSHIDR

 SMITH: TROY ROBERTSPlus 5 other boxing matches, including SHANE SUTCLIFFE vs A.J. MOORE
Thurs.Apr. 11, Doors open 7pm UBC War Memorial Gym TICKETMASTER: 280-4444

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## MAKE A DIFFERENCE: TEACH!

The University of British Columbia
invites applications
to its teacher education programs for September 1996

## All programs lead to both

- the UBC Bachelor of Education degree
- the BC Professional Teaching Certificate


## All programs include

- a full term of teaching practice
- effective communication skills
- Classroom management strategies

Secondary teaching applicants with 4 -year Bachelor's degrees and strength in one or two teaching subjects enter a 12 -month program. Middle school (grades $6-8$ ) teaching applicants with 4 -year Bachelor's degrees and strength in English, social studies or science may enter a 12month program.
Elementary teaching applicants with three or more vears of appropriate university credit may enter a 2 -year program.
Elementary teaching appplicants with acceptable 4 -year degrees may enter
a 12-month program.
Information and applications now available from: Application deadline Teacher Education Office
Faculty of Education
The University of British Columbia
2125 Main Mall, Vancouver, B.C., VGT 1 Z4
(Available 24 hrs.) Tel: (604) 822-5242/822-4612
Fax (604) 822-8227
April 15, 1996

Email tor $\operatorname{Fax}$ (604) 822-8227

In spite of the cost of living it's still
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## CH-UBC REPORTS

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With painstaking accuracy, computer graphics artisans are recreating the buildings, furnishings, plants and animals that once made the Yuan Ming Yuan garden the cherished private retreat of emperors. A CD-ROM version of the garden will allow visitors to enjoy the garden, which was destroyed during the Opium War, from the comfort of their computer screen.

## Long-lost Asian garden lives again on screen

by Charles Ker

## Staff writer

The opening shot reveals a flock of cranes flying low over a shimmering lake toward a shoreline dotted with elegant Chinese temples. Turning inland. part of the flock breaks away and cruises in to land beside one of the lavish. waterfront buildings.

Welcome to Yuàn Ming Yuan. grandest of all the gardens of the late Qing dynasty. For close to two years. computer graphics whiz Lifeng Wang has spearheaded a UBC-based project aimed at bringing the incomparable garden back to life in a virtual environment created by thre dimensional computer technology. Yuan Ming Yuan, Wangexplains. required
no less work than the no less work than the Great Wall of China to build. It took six genera tions of Ging emperors more than 170 years to create the 350 -hectare
enclave. In 1860 at the height of the Opium War. it took 3.000 Brit ish troops three days
burn the garden to the ground.
Working out of UBC's Media and Graphics Interdisciplinary Centre (MAGIC). Wang and three colleagues are finding it a fascinating. albeit laborious. task to recreate the imperial wonderland for others to enjoy
"In a virtual environment the greatest pleasure is gained through the exploration of space. and this garden represents the art of space at its zenith." says project art director David Botta. "Yuan Ming Yuan is an encyclopedia of everything the Chinese did well in gardening over 2,000 years.
Five successive emperors and their wives spent two-thirds of the year in the garden and would return to the nearby Forbidden City at the end of autumn. One emperor. QingLong. was so obsessed with Yuan Ming Yuan that construction in the garden didn't stop for a single day during his 60-year reign
GingLong personally criss-crossed the Chinese countryside six times gathering local treasures and searching out the best architects who could recreate the landscapes and architecture which pleased him most.
The result was a dazzling array of artificial lakes. mountains and temples full of priceless jade, sculpture, ceramics. furniture and other art works

Wang's interactive reconstruction gives viewers the sensation of being inside the garden and temples. Next year he hopes to produce the first in a series of CDROMs which will eventually include 3-D models of 148 garden sites each with up
nside the temples. explorers will be able o click on most of the artifacts and learn their history
"The project feeds into the growing Chinese interest in both their cultural heritage and electronic technology," says Wang.
Wang got the idea for the project in 1992 while attending a computer graphics conference in Chicago. A Japanese company had produced an animated video reconstruction of a ruined Chinese city and displayed it in the conference's
electronic theatre. He decided to use the same modeling techniques to rebuild something which lived in the imaginations of all Chinese people.

Everyone knows about the garden be-
cause it is in all the school books from elementary school right through to university." says Wang. who came to UBC from China five years ago
to pursue a master's degree in computer science. "The garden
was offlimits to all but the emperor and his invited guests. Now. it will be open to veryone to explore
The ultimate goal is to capture the entire garden and its contents in a single CD-ROM collection. So far. the project team has covered one-tenth of the material. Wang is confident that the commercial success of the project will allow him to hire more graphic animators to speed up the creative process.

The project team pores over books. paintings, etchings, maps and other illustrations before tackling another section of the garden.

Botta designed the opening crane sequence welcoming virtual visitors into the CD-ROM world of Yuan Ming Yuan. The sequence consists of 24 layers of complex graphic modeling. Aside from the detailed rendering of individual objects and the time taken to align the multiple layers, it takes a computer up to 15 hours to generate one second of animation.

The models are designed and rendered using software provided by the Toronto-based company. AliasWavefront. The company donated its software to UBC and to the project to assist in the development of a highly skilled animation industry in Canada.

The provincial Ministry of Education is considering developing an educational curriculum using Wang's computer models. Computer giant IBM also wants to use his models of the garden to showcase its own technology during the coming Olympics in Atlanta.

## M\&P desire change to terms of employment

by Stephen Forgacs

The Association of Administrative and Professional Stalf(AAPS) negotiating committee received strong support for a proposal to make changes and additions to the terms and conditions of employment for management and professional (M\&P) staff at UBC
AAPS President Justin Marples said that of the $130 \mathrm{M} \& \mathrm{P}$ staff who voted, only about seven people abstained or opposed.
Marples said the concerns expressed during the Feb. 8 meeting will be taken into consideration by the negotiating committee as it further refines the proposal in preparation for meeting with university negotiators.

AAPS, which has 665 members, will represent the university's $1.159 \mathrm{M} \& \mathrm{P}$ staff in negotiations.

The comments heard at the meeting have given us further direction. We're going to make modifications to what we have, clean up the proposal and prepare a final draft that will be made available to M\&P staff once again before we proceed to negotiations." he said.

The proposal deals with issues related to employment ranging from flextime. performance evaluation and professional development to parental leave and job sharing,

Our aim in this process is to establish a minimum standard or basic platform for
employment. which supports and protects. but does not limit nor inhibit M\&P don't want to put a low ceiling in place that encumbers the ability to manage. But when all else fails M\&P can resort to the agreement to solve a problem.

M\&P staff in attendance at the meet ing expressed concern regarding a pro posed change to probation requirements.

Based on feedback at the meeting we have decided to distinguish between new employees to the university and those promoted or transferred. For new employees we are proposing probation be six months with an option to extend for an additional three months; the current requirement of one year is too long. For promotions or transfers we feel that 90 days is probably long enough, but here again we are proposing an option to ex tend for three months." Marples said.

Sarah Dench, AAPS first vice-president. said staff at the meeting "were concerned about conveying a sense of professionalism and a sense of having the university's best interests at heart. Few of us are able to separate the fact that we are employees from the fact that we are managers and that we operate in the university's best interest
Marples said that negotiations with the university were scheduled to com mence Feb. 20 and he hopes that they will end before the summer

## Nobody's perfect, not even the perfectionists

by Gavin Wilson

Staff writer
Musicians who feel they are less than note-perfect are some of psychologist Paul Hewitt's most frequent patients.

Hewitt, an assistant professor in the Dept. of Psychology, researches and treats perfectionism, a malady that can immobi lize the most accomplished people
-For musicians, perfectionism is part of their jobs. They have always been told that what they're doing is either perfect or it's wrong." Hewitt said.

While some professions-including musicians, physicians and elite ath-letes-are especially prone to perfectionism, it can afflict anyone. Hewitt has seen it in children. the elderly. even the homeless. And contrary to popular wis dom. people who are perfectionists actually have poorer grades, make less money and tend to procrastinate.

Hewitt is the first to use empirical evidence to test beliefs held about perfectionism. In numerous studies he has linked it to social ills such as depression. alcoholism, sexual dysfunction, eating disorders and suicide.

I don't see anything good about needing to be perfect." he said.

Perfectionists are seldom happy; anything less than the top is a disaster, but to attain their goals brings little satisfaction.

There's an important distinction Some people have a strong need to perform excellently. They feel good when they perform well and deal realistically with failure." Hewitt said
"Others, however, have excessive selfstandards that serve to increase the frequency and magnitude of their perceived failures. If you need to attain perfection in order to feel adequate or worthy, you have a problem.'

Hewitt has found three types of perfectionism: self-oriented, in which you require perfection of yourself: other-oriented. in which you require others to be perfect: and socially prescribed. in which you believe
that others require perfection of you
With colleague Gordon Flett of York University. Hewitt spent five years devel oping a questionnaire and scale for meas uring perfectionist tendencies. Useful in both research and clinical settings, it is now in demand around the world.

Among its more important uses is helping professionals predict potential suicides. A Hewitt study found that socially prescribed perfectionism is a better predictor for suicide than even depression or feelings of hopelessness.
Hewitt believes the drive for perfec tion begins with a person's upbringing.
This could happen in three ways: the child learns from observing parents' per fectionism; parents set impossibly high standards for the child which the child incorporates: or parents reinforce perfect behaviour and punish imperfection.

Hewitt also believes children raised in a chaotic, permissive family could compensate for a lack of standards by trying to be perfect at everything

Society reinforces the need for per fectionism in vulnerable people whoneed to feel good about themselves. he adds. "Just open up a magazine and se how many times the word 'perfect' ap pears-the perfect car. the perfect home the perfect body. They all promise that your life will change dramatically if only you perfect some aspect of yourself.
Perfectionists are "notoriously diffi cult to treat." Hewitt said. They are loathe to admit weakness, resist at tempts to lower their standards and are quick to abandon therapy

Some psychologists use cognitive therapy to try to help patients set real istic or appropriate standards. Hewit takes a different approach. one based on interpersonal psychotherapy.
"What I do is look at what is motivat ing them. What is it about being perfect that is so important to them? Often they are doing it to gain the approval. respect or caring of people either in their past or currently around them.

# Calendar 

## February 25 through March 9

Sunday Feb. 25
Green College Performing

## Arts

Comedy Routine. Jacques Lalonde. Green College great hall. 8pm. Call 822-6067.

Monday, Feb. 26

## IHEAR Seminar

Student Research Seminar: Linguistics, Audiology And Engineering. Mark Cheng, Lisa Dillon. Carol Jaeger, Vicky Valiani, Krisztina Zajdo. Mather portable annex, classroom \#1,4pm. Hearing accessible. Captioning on request. Call 822-3956.

## Health Care Seminar

 Current Issues In Community Arnold, Executive Director. BC Assoc. of Community Care. Mather 253, 7-9pm. Call 9802157.
## Seminar

The Role Of Glia In The Development Of The Peripheral Nervous System. Vanessa Auld, Dept. of ments at 3.30pm Call $822-9871$
Mechanical Engineering Seminar
Thermal Hydraulic Performance Of Alternative Refrigerants. Dan Fraser. Dept. of Mechanical Engineering. CEME 1202, 3:304:30 pm. Refreshments. Call 822 3904.

## Seminar

Are All NSAIDS The Same? Dr. Stephanie Ensworth, Faculty of
Medicine IRC\#3, $2: 30-1: 30$ pm. Medicine. IRC\#3, 12:30-1:30pm. Call 822-4645.

## Astronomy Seminar

 Inhomogeneities In Hot Stellar Winds. Tony Moffat. Université Refreshments at $3: 30 \mathrm{pm}$. Call Refreshments at
## Seminar

Molecular Genetics And Transgenic Salmon For Aquaculture. Bob Devlin, Dept. of Fisheries and Oceans, West BioSciences 2449, 4:30pm. ReBrosciences $249,4230 \mathrm{pm}$.
freshments. Call $822-5709$.

## Lecture

Rusahilini: An Urartian Fortress: Seven Years' Excavations at Ayanis. Turkey. Prof Altan Cilingiroglu, Ege University, Izmir, Turkey. MOA theatre gallery, 8pm. Entrance free. Refresh-
ments. Call 822-2889. ments. Call 822-2889.

## Cecil \& Ida Green Visiting

Professor - Chemistry Seminar
Some Reasons To Be Interested Sorme Reasons To Be Interested
InCarbides. Roald Hoffman, John A. Newman Professor of Physical Science, Cornell. Chemistry D225, 10am. Awarded Nobel Prize in 1981. Call 822-5675.
Cecil \& Ida Green Visiting Professor - General Lecture Molecular Beauty. Roald Hoffmann, John A. Newman Professor of Physical Science. Cornell. Chemistry B150, 12:30pm. Awarded Nobel Prize in
1981. Call $822-5675$.

## Tuesday, Feb. 27

Economics Seminar Equitable And Incentive Compatible Cost-Sharing. H. Moulin. Host, Guofu Tan. Buchanan D. available in Economics reading room. Call 822-2876.

## Animal Science Seminar

 SeriesPair Formation And Reproduc tive Endocrinology

解 Bluhm. Delta Waterfowl Research Station, Delta. Manitoba.
MacMillan 160.12:30pm. RefreshMacMillan 160. 12:30pm. Refreshments. Call 822-4593.
Medical Genetics Seminar The Genetics Of Asthma. Dr. Peter Pare, Medicine. UBC. Wesbrook 201. 4:30-5:30pm. Refreshments at 4 pm in Wesbrook 226. Call 822-5312.

## Statistics Seminar

Probabilistic Earthquake Hazard Analysis. Dieter Weichert, GSC Victoria-Pacific Geoscience Cenre. ments. Call 822-0570

## Food Science Seminar

 Caviar:Production.Processing, Quality, Shelf-life. Vulf Sternin, formerlywith BC Research. Food Science 37 with BC Research. Food Science 37. 3-4:30pm. Call 822-3404.

## Botany Seminar

Plant Responses To Herbivory: Investigating The Impact Of Clipping Intensity And Fertilizer Availcies In the Boreal Forest. Samantha Hicks. M.Sc candidate. Botany. BioSciences 2000. 12:30-1:30pm. Call 822-2133.

## Pharmaceutaical Sciences

 SeminarStereoselective Pharmocokinetics Of Fluoxetine In Pregnant Sheep. John Kim, Faculty of Pharmaceu1:30pm. Call 822-4645.

## Oceanography Seminar

Paleoclimate Records From Cor als. Rob Dunbar, Rice U.
BioSciences 1465, 3:30pm. Call BioSciences $1465,3: 30 \mathrm{pm}$. Call
822-2821.

Creative Writing Seminar How We Got Here, Where We're Going. Screenwriting with authors Dennis Foon and Hart Hanson. Creative Writing, 4th floor. 12:30pm. Call Linda Svendsen.
The Laird Lectureship in Chemistry
A Chemical And Theoretical Approach To Bonding On Surfaces. Roald Hollmann, JohnA. Newman. Cornell. Chemistry B250 Cornell. Chemistry B250. 1 pm . 822-3266/822-5675.
Green College Speaker Series Gender Science And Development In Indonesia. Hilda Ching. Eastern Indonesia Universities Project. SFU. Green College coach house. 5:30-6pm. Reception in Graham House, 4:45-5:30pm. Call 8226067.

## Continuing Studies Lecture

## Series

Experts Giving Perspectives On Experts Giving Perspectives On World Events. Hotel Georgia, York room, 12:05-1:30pm. Continues to March 26 ( 5 Tuesdays). $\$ 55$
(seniors \$35). Bring lunch. Call (seniors $\$ 35$ ). Bring lunch. Call 822-1450.
Centre for Korean Research Performance
Korea Day - An Afternoon Of Traditional Korean Music. CK Choi conference room. 2:30-5pm. Call
$822-2629$.

## Wednesday, Feb. 28

Pharmaceutical Sciences Seminar
Hormone Replacement Therapy In Breast Cancer. Maryanne Lindsay. Pharm.D. student, Div. of Clinical Pharmacy, Faculty of Pharm. Sciences. Vancouver Hospital/HSC. Koerner Pavilion G279, 4:305:30pm. Call 822-4645.
Continuing Studies Seminar

## Series

Explorations Of Race And Violence In Cinema. Stephen Lee. Carr Hall
\$70. Call 822-1450.
Women's Studies Seminar or Being A Class "Bad" Girl: Workng Class Families, Delinquent Daughters, And Th Fanca Court rentre for Research in Women's Studies and Gender Relations 3:30-5pm. Call 822-9171.

## Issues In Post Secondary

Education Seminar
Technology, Open Learning And Distance Education: Impact On The Structure Of Post-Secondary Education. Tony Bates, Continuing Education. Green College coach house. 2-5pm. Call 822-6067.

## 19th Century Colloquium

 SeriesWork And Wonder In Children's Literature. Margaret Blom, Engish. Sheila Egoff, Library and Kieran Kealy, English. Moderator Wilhelm Emilsson, English. Green College coach house, 8-10pm. Call 822-6067.

Geography Colloquium
Soils And Global Change. Les Lavkulich, Soil Science. Geography 201, 3:30pm. Refreshments.
Call 822-4929.

## Classical Studies Lecture

 Sweeter Than Honey: The Problem Of Anger Control Among TheGreeks And Romans. William V. Greeks And Romans. William V. Harris, History, Columbia. Buchanan D244, 1:30pm. Call 822-2889.

## Microbiology and

## Immunology Seminar Series

 Negative Hemopoietic Regulators n Normal And Leukemic Granulocyles. Karim Abdel-Kader, Wesbrook 201 12:30-1:30 pm Call 822-3308.Respiratory Research
Seminar Series
Upper Airway Anatomy As A Predictor Of Obstructive Sleep Apnca. Dr. F. Ryan. 2775 Heather St.. 3rd floor conference room, 5-6pm. Call 875-5653.

## Ecology Seminar

Effects Of Viral Disease On Indiidual Performance And Population Dynamics Of Western Tent logy Host Dr Judy Myers. Fam ly/Nutritional Sciences 60 4:30pm. Refreshments in Hut B-8 at 4:10pm. Call 822-3957.

Surgery Grand Rounds The National Blood Inquiry. What
is Happening And Where Do We Is Happening And Where Do We
Stand? Dr. Gerry H.Growe Vancouver Hospital/HSC. GF Strong couver Hospital/HSC. GF Strong
Faculty Financial Planning
Lecture Series
1996: What Lies In Store For BC Consumers. Richard Allen, Credit Union Central Of BC. Hennings 201, 2:30-1:20pm. Call 822-1433.

Scholarly Colloquia Madness And Method: Ethics And Politics Of Research On Mental Illness In Prisons. Prof. David Allen, Nursing. UW. Vancouver Hosp/ HSC, UBC Pavilion T206, 4:306:30pm. Call 822-7453.
Orthopaedics Grand Rounds Osteoporosis Pearls 1996: New Nuggets On Non-Steroidals. Drs.
J. Wade and S. Huang. Vancouver Hospital/HSC, Eye Care Centre Hospital/HSC, Eye Care Centre Call 875-4111 local 66276.

Noon Hour Concert
Jane Coop, piano. Music recital hall, $12: 30 \mathrm{pm}$. $\$ 2.50$ at the door.

Research Seminar
Whose Experience? Postmodern Critiques Of Phenomenological Research On Clients Experience. David Allen,

Nursing, UBC Pavilion T206. 12:301:30pm. Call $822-7453$.

## Thursday, Feb. 29

## Genetics Graduate Program

## Seminar

Function Of Polycomb Genes In Drosophila. Hugh Brock, Zoology Wesbrook 201, 4:30pm. Refreshments. Call 822-8764.

## Seminar

Too Much Of A Good Thing: The Economics Of Investment In Research and Development. Chad block 225 . 4 pm . Call 822-2876.

Centre for Chinese Research Seminar
Yin Yang Philosophy And Modern Decision Theory: Using Binary Archetypes For Establishing Organizational Compatibility. Mondo Secter, IAR honorary research associate. CK Choi conference room 12:30-2pm. Call 822-2629.

## Seminar

Pathogenic Bacterial Exploitation Of Host Cell Processes. B. Finlay Microbiology. Copp 2002. 1pm.

Invited Speaker Seminar

## Series

Discrepancy Theory And Computational Geometry. Bernard Chazelle, Computer Science Dept., Princeton. CICSR/CS 208. 4pm. Refreshments. Call 822-3061.

Physics Colloquium Soap Films: The Inside Story. Joel Hennings 201. 4pm. Call 822-3853.

## Philosophy Colloquium

Optimists. Pessimists, and Compatibilist Fatalists. Paul Russell. Buchanan D202.1
$2: 30 \mathrm{pm}$. Call 822-3292.

Medieval \& Renaissance
Studies \& Italian Studies A Celebration Of The Poetry Of John Donne: Texts, Commentary And Music. Paul Stanwood and Bryan Gooch. English. Green College. reception room Graham House. 4:30-6:30pm and 8-10pm.
Call 822-6067.

Students for Forestry Awareness Speaker Series Culbertson Commission on Re sources and the Environment. MacMillan 166, 12:30pm. Refreshments. Call 274-4730.

## Innovative Thinking and

Creative Problem Solving Applied Sciences Continuing Education Course For Prolessionals Paul Tinari. Point Grey Golf and Country Club, 9am-5pm. Continues March 1. \$400. Call 822-3347

## Friday, March 1 Chemical Engineering Seminar

Modelling Submicron Aerosol Agglomerate Formation. Steven Royak, grad. student. ChemEng $3: 15 \mathrm{pm}$ in room 204. Call 822

Pharmaceutical Sciences Seminar
Platelet Activation Markers In Vascular Diseases. Dr. Dana Devine. Pathology. IRC\#3, 12:30
1:30pm. Call 822-4645. 1:30pm. Call 822-4645
Law And Society Seminar Student Conference On Law An Society issues. Green College coach house, 8am-6pm. Call 822 6067.

Economics Seminar

# Calendar 

## February 25 through March 9

And Peroxisomal Diseases. Dr.
William Krivit Paediatrics. Minnesota. GF Sirong auditorium. nesota. GF Strong audi
8:30am. Call $875-2307$.

## Health Care And

Epidemiology Rounds To Be Or Not To Be In The ER In Winnipeg: A New Wrinkle In Paricipatory Research. Sam Sheps and Morris Barer. Ma
1Oam. Call $822-2772$.
Intercultural Film Studies Series
Bergman and Feminism. Marilyn Johns Blackwell, Ohio State Buchanan penthouse, 12:30pm. Call 822-5546/822-3753.

## Intercultural Studies

 When World Views Collide: Values Orientations As A Bridge ToConflict Resolutions. Kurt Russo and Curt DuBois. Kluckhohn Centre for the Study of Values. Buchanan penthouse. 7pm. Call Karen at 822-2753.

## Saturday, March 2

Vancouver Institute Lecture
What's A Nice Country Like Us Doing In A Place Like This. Kim Campbell. IRC\#2. 8:15pm. Call 822-3131 during normal busi-
ness hours.

## Faculty Women's Club

 Social EventSpring Pot Luck Party And Social Evening. Cecil Green Park House. 7 pm . Reservations, call 22

## Intercultural Studies - A Multi-Disciplinary

 Perspective Workshop The Value Orientation Method. Kurt Russo and Curt DuBois. Kluckhohn Centre for the Study of Values. Buchanan penthouse. First Nations House of March 3 $9 \mathrm{am}-12 \mathrm{pm}$. Reqistration $\$ 30$ Call Karen 822-2753.
## Jazz Workshop

The Hal Galper Trio. Music re-
cital hall, 2 pm . Call $822-5574$.
Psychiatry Conference Shared
Frared Fantasies As choanalytic Perspective: And Gender And Sex: Psychological And Cultural Scripts. Wall Cenre Garden Hotel. Call 822-7971

Jazz Concert
The Hal Galper Trio. Music re dent hall, 8 pm . Adult: $\$ 12$. Student/senior $\$ 7$. Groups
morel $\$ 5$. Call $822-5574$.

Sunday, March 3
Green College Performing Arts alent Night Call 822-6067

Monday, March 4

## Health Care Semina

 New Structure And Organizations in Health. Etta Richmond. Chilliwack General Hospital. Mather 253, 7-9pm. Call 9802157.
## Astronomy Seminar

Gravitational Lensing By Galaxy Clusters. Gregory Fahlman. Hennings $318,4 \mathrm{pm}$. Refreshments from 3:30pm. Call 822-2696/822-

## Zoology Seminar

Energetics Of Fish Larvae Wolfgang Wieser, Institut fur
Zoologie und Limnologie. Austria. BioSciences 2449, 4:30pm Refreshments. Call 822-3372.

## Mechanical Engineering

 SeminarChallenges In University Research. Martha Salcudean, Assoc. VP, ReRefreshments Call 822 3904
Science and Society Semina Dissociative Fugues: The Body Language Of Oppressed Males. Ian Hacking, Inst. of History and Philosophy of Science, U of T. Green College coach house. 8pm. Call 82-6067.

## Centre for Intercultural

 Language Studies \& Medieval \& Renaissance Studies SeminarTravel And Translation: England Travel And Translation: England
And The Italian Renaissance. And The Ialian Renaissance. tower. English Dept. lounge, 5th loor, 3:30pm. Call 822-4436.
Philosophy Colloquium Aristotelian Categories And Domain Sper Buchanan penthouse ing. U of T. Buchanan penthouse.

## Tuesday, March 5

## Botany Seminar

 Morphogenesis In Acetabularia: Experiment And Theory. Jacques BioSciences 2000, 12:30-1:30pm. Call 822-2133.Oceanography Seminar Puget Sound Region Plankton: A Void In Our Estuarine Understand1465. 3:30pm. Call 822-2821

## Intercultural Language <br> Studies \& Medieval \&

Renaissance Studies
The European Renaissance: A Kenneth Bartlett. U of T. Green College coach house, $12: 30 \mathrm{pm}$. Call 822-4436.
Creative Writing Seminar How We Got Here. Where We're Zoing. Non-fiction with authors Creative Writing, Buchanan E. 4th floor. 12:30pm. Call Linda Svendsen 822-3058.
Green College Speaker Series What Do People Mean When They Say That A Mental Disorder Is, Or of History and Philosophy of Sci ence, U of T. Green College coach house. 5:30-6:30pm. Reception in Graham House 4:45-5:30pm Call 822-6067.

## Wednesday, March 6 <br> Pharmaceutical Sciences Seminar

Alternative Therapy In Ulcerative Colitis. Christine Hughes. pital/HSC Koerner Pavilion G279 pital/HSC, Koerner Pavilion

## Centre for Japanese

Research Seminar
The Quality Of Japanese Urban Life. David Edgington, Geography. CK Choi conference room, 12:302pm. Call 822-2629.

Pro Seminar for PhD students in Interdisciplinary Studies
Interdisciplinary Studies And PhD Candidacy Exams. Green college Microbiology \& Immunology Seminar Series $T$ Cell Development In CD2 and p59fyn Knock-Out Mice. HungSia Teh. Wesbrook 201. 12:30:30pm. Call 822-3308

## Respiratory Research

 Seminar SeriesF. Series, Laval. 2775 Heather St

3rd floor confere

## Ecology and Centre for <br> Biodiversity Seminars

 Microbial Diversity: Research And Reward. Joe McDermott and Vivian Miao, West-East Centre. Family/ Nutritional Sciences 60, 4:30 pm Refreshments in Hut B8, 4:10pm Call 822-3957.
## Lecture

Recent Developments In Poland And The Question Of European Security. Tadeusz Diem. Polish ambassador. Buchanan A204. 12:30-1:30pm. Call 822-5969
Faculty Financial Planning Lecture
Death. Property And The Law. Keith Farquhar, Faculty of Law. Hennings 201. 12:30-1:20pm. Call 822-1433.

## Creative Writing

Reading. Tomson Highway, play right. Frederic Wood Theatre Orthopaedics Grand Rounds The Future Of Orthopaedics I Canada: Your Future In Orthopaedies. Barry Baker (C.O.F.). Dr. R.W. McGraw, Dr. P.H. Wright. Vancouver Hospital/HSC, Eye
Care auditorium. Call $875-4111$ Care auditori
local 66276.

## Opera Panel Discussion

 The Mystery Of The Makropulos Case. Susan Bennett. Milena Jande. John Mitchell, Vancouver Opera: Andrew Busza, English. Buchanan penthouse, 12:30pm Call 822-4060.Noon Hour Concert Carolyn Cole, violin; Rebecca Whitling, violin; Stephen Wilkes. iola: Reginald Quiring. viola: Lee Duckles, violoncello: Kenneth $2: 30 \mathrm{pm} . \$ 2.50$. Music recital hall. 12:30pm.
$822-5574$.

## Thursday, March 7

Genetics Graduate Program Seminar
Sex Determination In Drosophila. Bruce Baker. Biological Sciences. Stanford. Wesbrook 201, 4:30pm. Call 822-8764

## Physiology Seminar

 Mapping Synaptic Signals To Single Synapses. Tim Murphy, PsychiatryBiochemistry and Molecular

## Biology Seminar

 Cromatin Re-Modelling Complexes Involved In Control OfCell Fate. John Tamkun. Biological Sciences. UCSanta Cruz. IRC\#3,3:45pm. Refresh-
## Philosophy Colloquia

 Reason, Nature. And Foraging For The Truth. Karen Pilkington. SFU. Buchanan D202, 1-2:30pm. Call 822-3292.Physics Colloquium Advanced Design. Epilaxial Growth And Device Processing For Ultra-High-Speed ( $>40$ GHz) DirectlyModulated Semiconductor Lasers. John Ralston. Spectra Diode Labs.
Hennings 201, 4pm. Call 822-3853.

## Woodward Lecture Series

 Globalization And The Conver gence Of Nations: What Does HisHarvard. Buchanan A102, 12:301:30pm. Call 822-5661.Green College Speaker Series The Truth In Fiction: Marx And Weber On The Genealogy Of Economic Man." Thomas Kemple, So $5: 30 \mathrm{pm}$ Call 822 -6067 0pm. Call 822-6067

## Students for Forestry

Awareness Speaker Series
The Forest Debates. Ben Parfitt. free
lance reporter and co-author of Forestopia. MacMillan 166, 12:30pm
Refreshments. Call 274-4730

## Your UBC Forum

The First Year Experience. SUB Conversation Pit. 12:30-2:30pm Multidisciplinary Conference on Integrated Service Delivery
Together For Children And Youth. Keynote Speaker: Fran Grunberg. director of Child Protection Service. BC. Graduate Student Centre, 9am-4pm. Continues March 8. Call Dr.William McKee 822-6572.

Friday, March 8
Chemical Engineering Seminar
Design. Characterization And Scale-Up Of Affinity Chromatography Column Based On CBDcex, Beatriz Rodriguez. grad student. ChemEng 206, $3: 30 \mathrm{pm}$. Refreshments at
$822-3238$

## Economics Seminar

 Globalization, Inequality And History. Jeffrey G. Williamson. Harvard. Buchanan D225. 4pm. Call 822-2876.Theoretical Chemistry Seminar
Application Of Gas Kinetic Theory To Premixed Laminar Flames. D.G. Napier. Chemistry. Chemistry

## Occupational Hygiene

## Program Seminar

WorkplaceCharacteristics Associated With Reduction In Hand/Arm And Back Symptoms In Office Workers. Nancy Nelson. epidemiologist, Wash ington State Dept. of Labor and In dustries. Vancouver Hospital/HSC

Koerner Pavilion G279. 12:301:30pm. Call 822-9595.
Pharmaceutical Sciences
Role Of Cyclic GMP-Dependent Protein Kinase In The Regulation Of Cardiac Contractibility. Karen Macdonell. grad student. IRC\#3

## Politiical Science Seminar

 Democracy In The European Un on. Roland Axtmann, Aberdeen. Angus penthouse $3-4: 30 \mathrm{pm}$. Call 822-2717.Canadian Studies Lecture Plain Peoples' Country: An Alternative National History. Gerry friesen. History. Manitoba Buchanan B212
Call 822-5193.

Grand Rounds Syncope. Dr. Marion Tipple, director, Electrophysiology Lab.. Children s Hospital. GF Strong
auditorium. 9am. Call $875-2307$

## Health Care \&

Epidemiology Rounds
EMF And Occupational Exposure. Dr. Doug Hamm, director. Health Servines Mather 253.9IOam. Call 822-2772.

## Concert

UBC Chamber Strings. Gerald Stanick, director. Music recital hall, 8pm. Free. Call 822-3113.

Saturday, March 9
Vancouver Institute Lecture Dealing With The Challenge Of Globalization: The Long View. Professor Jeffrey Williamson. Economics. Harvard. IRC\#2, 8:15pm. Call 822 3131 during regular business hours.

## Notices

## Library Workshops

UBC Library offers more than 100 workshops each term on how to
search UBCLIB, the Library's earch UBCLIB, the Library's online catalogue/information sys tem and how to search electronic Call or visit individual branches and divisions for course descrip tions and schedules.

## Badminton Drop-In

 Faculty/Staff/Grad Students are welcome at the Student Recreation Centre. Mondays. 6:30-8pm. and Wednesdays. 6:45-8:15pm.Bring your library card. Cancella Bring your library card. Cancella-
tions: ratkay@unix infoserve net or

# Environmental Programs 1995 Annual Report Dept. of Health Safety and Environment 

Key Accomplishments in 1995:

- Emergency Scenario
- 3 Meetings of Advisory Committee
- Pilot Environmental Compliance Audits
- Expansion of Hazardous Waste Reduction Initiatives
- Development of Campus Wide Computerized Waste Tracking System
- Review and Update of Hazardous Waste Disposal Procedures
- Draft of Waste Minimization Check Lists.for Photoprocessors and Mechanical/Electrical Shops
Environmental Programs consists of environmental compliance, hazardous waste management, and emergency preparedness programs. The group is responsible for developing and imple menting environmental controls on campus required for compliance with regulations and policy. Its mandate includes developing and implementing:
- The UBC environmental management systems and reporting struc tures. This includes regular reporting to the Board of Governors Health. Safety and Environment Committee. and the UBC community at large.
- Environmental compliance auditing and regulatory liaison.
- Hazardous waste reduction initia tives including solvent recovery and chemical exchange.
- Training and awareness programs.
- The safe collection, storage and disposal of chemical and biohazardous waste from all teaching, research, and operations activities.


## Key Accomplishments in 1995

- Emergency Scenario

An emergency response scenario was conducted in June at the Environmental Services Facility. The exercise tested the emergency plan of the facility, as required by BC Environment. In addition, it examined inter agency emergency communication capabilities at UBC, and protocols for prioritizing injured and transferring them from one response organization to another.

Environmental Programs Advisory Committee
This committee, formed in 1994 reports to the Vice President Re search, and is comprised of repre sentatives of faculties and operating departments. The committee reviews the progress of UBC's Environmental Management Program, and makes recommendations on UBC activities and issues related to environmental compliance. The Committee met on 3 occasions in 1995 and dealt with issues pertaining to environmental auditing, and storage tank manage ment.

Environmental Compliance Audits Procedures, protocols and audit forms were developed in the first six months of 1995. Seventeen pilot audits were conducted throughout the year in various volunteer depart ments. The audits have been well received by participating departments.

- Computerized Waste Tracking System The computerized waste tracking and inventory system was expanded to cover solvent and biohazardous waste generated on campus. Two hundred generators of hazardous


## waste are registered

- Hazardous Waste Reduction Initiatives

The solvent recovery program ex panded from a monthly production of 250L/month in December 1994 to 400L/month in December 1995 Recoverable solvent streams now include, methanol, ethanol, acetone. acetonitrile, xylene and dichloromethane.
The pilot Chemical Exchange Pro gram was developed throughout 1995 and diverted approximately 700 Kg of hazardous materials destined for disposal. The photochemical waste treatment and disposal program treated 4.717 L of material in 1995 An increase of over $250 \%$ on 1994

- Hazardous Waste Disposal Procedures

A review of all hazardous waste disposal procedures was completed by members of the Hazardous Waste Management Team. These updated procedures were included in the "Generic Safety Manual" produced by Health. Safety \& Environment that is being distributed to all Safety Committees on campus.

- Waste Minimization Check Lists

Waste Minimization Check Lists were drafted for photoprocessing units and mechanical/electrical shops by members of the Hazardous Waste Management Team.

## Environmental Awareness <br> Initiatives

## Substance Assessment Fact

## Sheets

The Department of Health. Safety and Environment continued in 1995 to produce "Substance Assessment Fact Sheets". These fact sheets contain information summarized from Environ ment Canada reports and examine environmental and human health effects of many widely used substances. In 1995, the list of fact sheets was expanded to include:

- dichloromethane
- benzene
- aniline and
- arsenic


## Environmental Newsletter

## (Waste Watchers)

Three issues of the environmental newsletter - Waste Watchers were produced and distributed in 1995 by the Hazardous Waste Management Team. The newsletter received numerous inquiries and praise. Articles in 1995 included:

- PCB's
- Household Hazardous Waste
- Plastic Packaging
- Solvent Recovery Updates
- The Green Office
- Glass Waste Revised Procedures
- Waste Tracking System
- Environmental Responsibility
- Chemical Exchange Program
- Environmental Auditing at UBC
- Paint Collection
- Wastes Not Accepted by the GVRD Landfill


## Hazardous Waste Management Team (HWMT)

Members of the team in 1995 were:
John Metras and Mary Jean O’Donnell Waste Reduction Program; Diana Hastings, Wood Science; Ron Aamodt. Randy Alexander. Donna Ashick, Mark Aston, Nairn Hay and Dorit Mason Health, Safety and Environment.
As well as producing the Waste Watch-
ers newsletter. the team completed a
 procedures at UBC. Many areas were updated and several additions were made. The revised procedures are being distributed by the Department of Health. Safety and Environment.
The team developed draft versions of "Waste Minimization Check Lists" for photographic processing areas and mechanical/electrical shops. These 1 to 2 page draft check lists were designed for easy completion and distribution to the appropriate work places. The sheets provide ideas for reducing the amount of hazardous waste generated.

## National Round Table Report

Environmental Programs forwarded information requested by the National Round Table on the Environment and the Economy for the report titled "A Practical Introduction to Environmental Management on Canadian Campuses The report utilizes many of UBC's environmental initiatives as examples throughout the report

## Enviro

To increase awareness concerning the environmental initiatives undertaken at the Environmental Services Facility. facility staff conducted numerous tours to a variety of groups in 1995 including:

- Dunbar Residents Association
- Board of Governors
- University Chemical Safety Committee
- Fraser Valley School Teachers
- Visiting scientists and hazardous waste administrators from Indonesia
- Individual members of the local community


## Environmental Award

In 1995 the second Environmental Programs Award was presented from President Strangway to Ms. Diana Hastings and the Department of Wood Science. The award recognized their continuing efforts to consider environmental issues in day to day activities. their active role in assisting Environmental Programs in developing several hazardous waste reduction initiatives, and assisting with the development of the environmental compliance audits.

## Seminars And Training

During 1995, members of the Environmental Programs group developed course modules on hazardous waste management. minimization, and emergency preparedness. These were presented as part of the Chemical-Safety and Bio-Safety courses as well as in various departmental training seminars presented to new graduate students. Besides these formal training sessions. the Environmental Programs group was involved in informal training with members of the University community.
The Environmental Seminar Series in 1995 had five speakers and a variety of topics. The titles of the 1995 seminars were:

- "Flavour of the Month" Toxics and our Perception of Risk, Shona Kelly, Health Care \& Epidemiology
- Business and the Environment: A Case for Proactive Action, Malcolm Metcalfe, Manager, Environmental Affairs. Canadian Airlines
- The Cariboo Mountains Slide Show, Doug Radies, Cariboo Mountains Wilderness Coalition
- International Law of the Sea: Salmon and the West Coast Crisis, Richard Paisley, Westwater Research and

UBC Law

- The Future of Solid Waste Management: Rethink. Reduce. Reuse, Recycle and Compost. John Metras. UBC Waste Reduction Coordinator A new course was developed entitled 'Environmental Responsibility at UBC'. This was a follow up to the 1994 course titled 'Meeting Environmental Goals at UBC'. The seminar course was developed and offered in 1995 to help employees and supervisors understand their responsibilities relating to environmental regulations and UBC's new Environmental Compliance Policy. Discussions centered on the policy's implications for University departments and employees.
In addition, informal training and valuable job experience was provided to four work study students and one "Greening the Campus" fourth year undergraduate through several initia tives at the Environmental Services Facility
Environmental Services Facility (ESF)
Following the reorganization in 1994 which integrated the hazardous waste disposal activities with several new hazardous waste reduction initiatives the name of the facility was officially changed from "Chemical Waste Disposal Facility" to "Environmental Services Facility".
The major focuses of the Facility in 1995 were to.
- systematic integration of the compu terized tracking system throughout campus
- document and update work proce dures
- continue to integrate hazardous waste disposal with hazardous waste reduction initiatives
- continue to expand hazardous waste reduction initiatives


## Computerized Waste Tracking System

The computerized hazardous waste tracking system which was designed and developed in 1994, was implemented and gradually integrated into UBC's daily activities. The system uses the latest in bar-coding technology to track the life cycle of materials entering the facility; starting from the time they enter to final disposition. The system allows for improved inventory control, material management, records keeping and invoicing procedures. In addition. it can be used to summarize the areas where the materials originate
Throughout the year, 200 principle generators of hazardous waste across campus were registered on the system. All solvent and biohazardous waste is now fully tracked using this system.

## Pathological Incinerator

Following the modifications made in 1994. operating procedures were re vamped to reduce the air emissions resulting from operation. As a result, the incinerator passed the Greater Vancouver Regional District's air emission tests in all categories $(\mathrm{HCl}$, particulate, and flow rate). The Univer sity maintains compliance with these parameters to ensure that the incinerator remains permitted by the B.C Ministry of Environment and the Greater Vancouver Regional District

Biohazardous Waste Disposal
The amount of biohazardous waste
disposed of at the ESF in 1995 is shown in Table 1. The total amoun

THE UNIVERSITY OF BRITISH COLUMBIA

## Environmental Programs 1995 Annual Report

| Category | UBC | UVic | SFU | University <br> Hospital/ <br> Other | Total (Kg) |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Pathological | 24828 | 232 | 2032 | 5335 | 32428 |
| Infectious | 23407 | 1543 | 9 | 148 | 25108 |
| Sharps/Needles | 559 | 535 | 49 | 11 | 1155 |
| Delisted Radioactive | 3019 | 0 | 0 | 356 | 3376 |
| Other | 1551 | 550 | 58 | 177 | 2337 |
| Totals $(\mathrm{Kg})$ | 53365 | 2861 | 2150 | 6029 | 64406 |

Table 1: Biohazardous Waste Disposal In 1995.


Figure 1: Reduction In Biohazardous Waste At UBC, 1992-1995.
processed decreased over last year by approximately $30 \%$. About half of this reduction is attributable to the University Hospital which has decreased the quantity of material sent for disposal at the ESF. The other $14 \%$ is due to reduced amounts of waste received from UBC facilities.
Figure 1 illustrates the trends in biohazardous waste received from UBC alone. While there was an increase in 1994, the overall biohazardous waste received by the facility has decreased by $12.5 \%$ over the past 4 years. Quantities of pathological and delisted radioactive waste have declined, sharps and needles have remained fairly constant, and infectious waste has increased slightly.
Overall the ESF currently processes nearly $50 \%$ less biohazardous waste than it did in 1992.

## Solvent Waste Disposal

The amount of solvent waste received at the facility in 1995 is shown in Table 2 below. The total amount received was
27.413 L which was an increase of 578 L over 1994. Of this material $24,188 \mathrm{~L}$ was destined for disposal by Laidlaw Environmental Services.

## Waste Chemical Neutralization

Certain hazardous wastes are segre gated for neutralization at the Facility. Primarily these materials are simple acids/bases and various low toxicity inorganic salts. In 1995. 40 Kg of solid waste and $1,701 \mathrm{~L}$ of liquid waste was neutralized. These materials are then released into the sewer system under permit from the Greater Vancouver Regional District.

## Lab-Packed Chemicals

One thousand and sixty kilograms of lab-packed chemicals were sent to the Facility to be packaged for off-site disposal in 1995. This is a reduction of almost $75 \%$ on the amount received in 1994. These materials were handled and disposed by TriWaste Reduction Services. Following treatment and neutralization it is estimated that only $25 \%$ of this material

|  | UBCUniversity <br> Hospital | Other* | Total |  |
| :--- | ---: | ---: | ---: | ---: |
| Liters | 22093 | 1255 | 4065 | 27413 |
| Solvent breakdown <br> Chlorinated (L) | 7668 |  |  |  |
| Non-Chlorinated (L) <br> Percentage of non-chlorinated solvent <br> recovered | 14425 | 1255 | 1100 | 16780 |

Table 2: Solvent Waste Received at the Environmental Services Facility, 1995.

* Other includes non university departments on campus, e.g. Biomedical Research Center. TRIUMF...

| PCB Contaminated Material |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 1991 | 1992 | 1993 | 1994 | 1995 | Total |
| Transformers/other (Kg) | 2,172 | 0 | 160 | 81 | 0 | 2.413 |
| Oil (litres) | 1,050 | 320 | 0 | 81 | 0 | 1,451 |
| Light ballasts (Kg) | 1.691 | 1,294 | 3,577 | 3,436 | 4,526 | 14,524 |
|  |  |  |  | 18,388 |  |  |
| Amount of PCB contaminated material stored prior to $1991(\mathrm{Kg})$ |  | 5,135 |  |  |  |  |
| Total amount of PB contaminated material stored on site $(\mathrm{Kg})$ | 23.523 |  |  |  |  |  |

Table 3: PCB Contaminated Materials in Storage at the Environmental Services Facility.
was sent to a hazardous waste landfill.

## Waste Oil

Non-PCB contaminated oil sent to the Facility for disposal amounted to 600L This is a reduction of $80 \%$ compared with the amount received in 1994. The oil was sent to Mohawk for recycling.

## Batteries

Approximately 2.8 tonnes of batteries were sent to the facility for disposal. This is a $16 \%$ increase on the amount received in 1994.

## Potentially Explosive Materials

One pick-up of potentially explosive materials from the UBC campus was coordinated in 1995. Approximately 40L of material were removed by Laidlaw Environmental Services.

## PCB Contaminated Materials

Table 3 illustrates the amount of material stored at the Facility which is contaminated with PCB's since 1991. The total amount of PCB contaminated material stored on-site is approximately 23.5 tonnes.

## Recovery Programs

The recovery of certain hazardous wastes generated from the University can be divided into three main areas. Recovery of organic solvents, recovery of silver and treatment of photographic
waste solutions and the exchange of unused chemicals. Each area expanded greatly in 1995. Approximately $30 \%$ of the chemical waste sent to the facility in 1995 was either treated for safe disposal on site or recovered for re-use.

## Recovery of organic solvents

The amount of solvent recovered in 1995 grew by $184 \%$ over last year to 3,225L. By December 1995 over 400L/ month was being recovered. Figure 2 illustrates the increase in the solvent recovered from 1994 which increased gradually. The second quarter in 1995 shows a dip in production due to equipment failure.
Figure 3 shows the breakdown of the solvents recovered. The most significant increase is in the production of ethanol. This resulted from establishing a contract with the Vancouver Hospital and Health Sciences Center - UBC Pavilion for $96 \mathrm{~L} /$ month.
Another significant addition was in the recovery of dichloromethane. Currently production is small due to limited reuse potential for the grade presently produced. In 1996 a "Greening the Campus" 4th year undergraduate will be working on improving the recovery procedures for dichloromethane. It is hoped that this will lead to improved purity of the recovered solvent and greater re-use potential. In addition, four work study students are also


Figure 2: Growth of the Solvent Recovery Program, 1994-1995.


Figure 3: Breakdown of Solvents Recovered at the Environmental Services Facility.


Figure 4: Photographic Waste Treated, 1994-1995.
currently employed on a variety of other solvent projects all of which provide excellent work experience.
Another notable success was the development of separation techniques to reduce the amount of xylene in ethanol waste from histology laboratories. The method that was devised now allows the ethanol to be re-used in the histology process. Work study students are currently focusing on increasing the amount of material recovered from the Department of Chemistry. In addition, the students are trying to optimize methods for the recovery of acetonitrile.
The solvent recovery program provided a service to 14 departments in 1995:

- Academic Pathology
- Anatomical Pathology
- Anatomy
- BC's Children's Hospital
- Botany
- Biomedical Research Center
- Chemistry
- Dentistry
- Metals and Materials Engineering
- Oceanography
- Pharmaceutical Science
- Plant Science
- Soil Science
- Zoology

Treatment of Photographic Waste
Following proposed legislation by the Greater Vancouver Regional District, Environmental Programs established a program for the collection, treatment and partial recovery of silver and photographic waste solutions. Prior to the program, all photographic waste solutions were disposed directly into the sewer without any treatment. In 1995 the amount of photographic waste solutions sent to the facility increased by $256 \%$ over 1994 volumes to 4.717 liters (figure 4). It is anticipated that the majority of the photographic waste generated at UBC is now being handled by the Facility.

Material was received from the 17 departments listed below:

- Acute Care Unit
- Anatomy
- Biochemistry
- Biotechnology
- Botany
- Biomedical Research Center
- Dentistry
- Forestry
- Geography
- Media Services
- Medical Genetics
- Metals and Materials Engineering
- Microbiology
- NCE
- Oral Biology
- Psychiatry
- Zoology


## Pilot Chemical Exchange

## Program

The pilot chemical exchange program which was developed in 1994 by a work study student was implemented in 1995. The program diverted 438L of liquid chemicals and 260 Kg of solid chemicals from the waste disposal stream. These materials were distributed to new users across campus. In 1995 the following departments received free material.

- Pharmacy
- Fisheries Centre
- Pharmaceutical Science
- Chemical Engineering
- TRIUMF
- Metallurgy
- Mining and Minerals Processing
- Soil Science
- Zoology
- Plant Operations
- Health, Safety \& Environment

It is estimated that this redistribution of material saved the University approximately $\$ 2,300$.

| Initiative | Money Generated | Disposal Cost <br> Saved | Total |
| :--- | ---: | ---: | ---: |
| Solvent Recovery | $\$ 3,768.56$ | $\$ 3,225.00$ | $\$ 6,993.56$ |
| Photowaste Treatment | $\$ 996.25$ | $\$ 4,717.00$ | $\$ 5.713 .25$ |
| Chemical Exchange |  | $\$ 2,293.00$ | $\$ 2,293.00$ |
| Chemicals Neutralized |  | $\$ 1,750.00$ | $\$ 1,750.00$ |
| Total | $\$ 4,764.81$ | $\$ 11.985 .00$ | $\$ 16,749.81$ |

Table 4: Estimated Cost Savings to the University, 1995.

## Financial Initiatives

Many of the hazardous waste reduction, treatment and recovery programs were established from initial capital funding from the Ministry of Advanced Education in 1993. Operating funds for these programs come from University budgets. While the primary goal of these programs is to minimize the environmental impact of the University. the economic viability of them is also important.
Table 4 illustrates the financial benefits resulting from some of these programs The money generated is that received from selling recovered solvent or for charges to non university departments on campus for treatment/recovery services.
It is estimated that approximately $40 \%$ of the additional costs associated with running these programs is being recooped by the university through these measures.

## Environmental Compliance

## Audits

The environmental compliance audit program is currently in a pilot stage. In the first two quarters of 1995. forms used in the audits and audit procedures were developed. Specific forms were created for laboratory spaces, office spaces and facilities. The methods and forms were tested on selected departments. Through the help of these voluntary departments, the audit process has been refined; the time required to conduct the audits has been significantly reduced.
The audit process includes.

- introductory meetings
- completion of general space questionnaire
- interviews, walk-through surveys, and completion of specific site audits
- summary of audits. report generation
- six month reviews of audited areas.

The environmental compliance audits conducted at the University are phase I audits. Items investigated during an audit include the following:

- the presence of hazardous materials and their usage, storage and disposal
- training of individuals
- reporting mechanisms
- spill response and emergency preparedness
- a historical review

Areas that were used as test sites for the pilot audit include:

- Department of Health, Safety and Environment
- Environmental Services Facility
- Department of Wood Science
- Surplus Equipment Recycling Facility
- Plant Operations Warehouse, South Campus
- Plant Operations Transfer Station, South Campus
- General Services Administration Building (Financial Services, Human Resources, Internal Audit, Purchasing, American Express Travel Agency)
- McDonald Research Wing Laboratories located at St. Paul's Hospital (Pulmonary Research Laboratories Cardiovascular Research Laboratories, Critical Care Research Laboratories).

In total. 17 pilot audits have been completed. The audits were summarized into six draft reports which include recommendations for attaining compliance with environmental laws and regulations. as well as University
policy and procedures. Feedback from individuals involved in the pilot audits has been positive.

An article entitled Environmental Compliance Audits and Freedom of Information was presented at the 13th Annual College and University Hazardous Waste Conference in August. This paper summarizes the environmental compliance audit procedures currently used at the University and potential implications of the Freedom of Information Act. The article was well received at the conference.

## Emergency Scenario

An emergency response scenario was conducted at the Environmental Services Facility in June of 1995 . One of the objectives of the exercise was to test the facility emergency plan and thereby comply with the BC Environment permit. The second priority of the event was to examine interagency emergency communication capabilities at UBC. A third function of this multivictim scenario was to examine protocols for prioritizing the injured and for transferring the individuals from one response organization to another.

As in scenarios conducted in the previous two years by the Department of Health. Safety and Environment, the exercise involved representation from HSE. Parking and Security, the BC Ambulance Service, RCMP. and the University Endowment Lands Fire Department. This scenario also in volved participation from the UBC Public Affairs Office, Vancouver Hospital \& Health Sciences Center - UBC Pavilion. Hospital Emergency and Security Departments. St. John's Ambulance provided realistic make-up for the actors. Representatives from the Greater Vancouver Regional District and BC Ministry of Environment participated as observers. In total there were nearly 100 individuals involved in the scenario.

A debriefing session was held the same day as the scenario to determine and discuss areas of concern that arose during the exercise. Feedback from al participants was positive and interest was stated for involvement in future annual emergency response exercises.

## Reportable Spills

In 1995, Environmental Programs personnel were involved in conducting investigations of three incidences that were reportable in nature to the Ministry of Environment and the Provincial Emergency Program.

1. February 2, 1995. Approximately 20 gallons of gasoline fuel spilled from a temporary above ground storage tank at the Plant Operations pumping station. The Ministry of Environment and the Provincial Emergency Program were contacted. The site was cleaned by an outside contractor.
2. Approximately 100 litres of waste oil leaked from an unused transformer stored at the South Campus warehouse on April 12, 1995. The incidence was reported to the Ministry of Environment and the Provincial Emergency Program. Contaminated soil was removed and the site was cleaned by Plant Operations.
3. On September 14, 1995 approximately 40 gallons of hydraulic oil spilled from one of the Plant Operations Garbage trucks. The spill was contained and cleaned. No contamination was found in nearby storm sewer drains. The Provincial Emergency Response line was contacted

THE UNIVERSITY OF BRITISH COLUMBIA

## Personal Security Coordinator 1995 Year End Report Dept. of Health Safety and Environment

Key Accomplishments in 1995:

- Free Personal Security Workshops for Students through the Women Students' Office
- "Your UBC" Forum on Campus Safety sponsored by the Vice President, Student \& Academic Services
- AMS Student Safety Audit
- AMS Student Safety Commissioners
UBC Safety Guide published by the Women Students' Office
- Personal Security Review Audits conducted by Local Safety Committees
- Discrimination $\&$ Harassment Training by the Equity Office
- Ongoing free Personal Security Workshops for Employees through the Personal Security Coordinator's Office
- "Safer Campuses" Initiative funding from the Ministry of Skills, Training \& Labour
- 4 Meetings of the Personal Security Advisory Committee
- "Student Safety at UBC" Report by Dr. D.H. Currie
- Compliance with WCB Regula tions on the Prevention of Vio lence in the Workplace
The Personal Security Coordinator is responsible for developing and imple menting University-wide personal security programs, as well as promot ing existing and ongoing programs The Coordinator is responsible for coordinating the collections, analysis and distribution of personal security information and for assisting with the resolution of complaints related to personal security.
The Personal Security Coordinator's report on the status of UBC's personal security programs reflects, insofar as possible, all of the activities underway at UBC. This Report provides an overview of current services and ongoing programs, as well as annota tion of the forum and reports on student safety at UBC


## I. Overview of Current Services

 and Ongoing Programs:
## Personal Security Advisory Com

 mittee ("PSAC"):The PSAC was formed in April 1994 and reports to the Vice President Administration and Finance. The PSAC is composed of the following representatives: Associate Vice President Equity; Director, Women Students Office; Director, Parking \& Security Services: Director, Health Safety \& Environment; Personal Security Coordinator; AMS Vice President Associate Director, Public Affairs; RCMP; Faculty Association; C.U.P.E locals: A.A.P.S.; and the University Health \& Safety Committee. The PSAC's mandate is to advise on changes needed in UBC's policies, procedures and practices which effect personal security, to develop a personal security plan for the campus and to devise personal security training programs for faculty. staff and stu dents. In the fall of 1994, the PSAC presented the UBC Personal Security Plan to the Board of Governors and the Plan was published as an insert in the UBC Reports. The PSAC is also responsible for the allocation of the ongoing Safer Campuses Initiative funding provided by the provincial Ministry of Skills, Training \& Labour.

2. The Personal Security Coordina- tor's Office:

a) Personal Security Coordinator: In the Spring of 1994, UBC created the full-time permanent position of the Personal Security Officer in the depart ment of Parking and Security Services. In the fall of 1994. the position was moved to the department of Health, Safety \& Environment and retitled the Personal Security Coordinator. The Personal Security Coordinator is primarily involved in administering the UBC Personal Security Plan and coordinating and promoting campus services related to personal security and safety, including the projects funded by the Safer Campuses Initiative. Among the Coordinator's respon sibilities are coordinating and promoting personal security programs for the University with a focus on training and education; developing fact-finding and reporting mechanisms for personal security issues and concerns; promoting awareness of UBC services and recommending procedures to enhance an effective University response to incidents; and collecting information and data about incidents on campus. The Coordinator is also actively involved in the development of policy related to the Workers' Compensation Board Regulations on the prevention of violence in the workplace and acts as a liaison with Heads and senior managers of departments. faculties, student groups and campus and off-campus security service providers regarding the resolution of individual complaints and personal security issues in general.
b) Personal Security Review Audit Program:
The Local Safety Committees conducted personal security review audits of all the campus buildings in the fall of 1995 under the direction of the Personal Security Coordinator, through partial funding of $\$ 3,500.00$ from the 1994-1995 Safer Campuses Initiative. The results of the 1995 audits will be entered in a database and the Personal Security Coordinator will generate a report providing an overview of concerns and recommending future improvements. As well. the AMS sponsored a group of students to conduct random audits of campus areas frequently travelled by students during the 1995-1996 school year. The students consulted with the Personal Security Coordinator in the development of the audit questionnaire; the information obtained through the student audits will be appended to the personal security review audit report.
Two major audit programs have been undertaken at UBC prior to 1995: in 1993, a Campus Safety Plan was developed to outline a comprehensive planning strategy on campus safety through the department of Campus Planning \& Development; another audit, based on the METRAC Women's Campus Safety Audit Guide, was administered jointly by the President's Advisory Committee on Women's Safety on Campus and the Safety Committees in 1992. The current training program for Local Safety Committee members includes a component on personal security and committees are encouraged to resolve ongoing personal security issues with the help of the Personal Security Coordinator and through the continuing informal audit program.
c) Compliance with WCB Regulations on Violence in the Workplace:

The Personal Security Coordinator conducted a risk assessment in compli
ance with the WCB Regulations in the fall of 1995. The risk assessment asked UBC employees to indicate whether they have experienced an incident of violence involving a person other than a UBC employee in their workplaces and to indicate their level of training regarding such matters. The results of the risk assessment survey have been compiled in a database and the Personal Security Coordinator will generate a report indicating areas of concern. In conjunction with other campus units, the Personal Security Coordinator will develop future training for preventing violence in the workplace.
d) Personal Security Workshops for Employees:
The Personal Security Coordinator coordinates the Personal Security Workshop training program for UBC employees. The Coordinator recruits and trains volunteers who are current UBC employees to deliver the 90 minute workshops to interested departments on campus. The Coordi nator maintains statistics on the number of Personal Security Workshops delivered on campus and the number of employees that attend the workshops. To date, over 800 UBC employees have participated in Per sonal Security Workshops. As well, the Coordinator revises the workshop materials and updates the information on an ongoing basis

## 3. The Women Students' Office

## ("WSO"):

a) "Safer Campus" Workshops:

The WSO runs the "Safer Campus" Peer Educator program to increase awareness of safety issues among the UBC student population. In consultation with the Personal Security Coordinator the AMS and Student Housing, the WSO developed Personal Security Workshops for students funded with $\$ 18,000$ of the 1994-1995 provincial Safer Campuses Initiative funding. The workshops are delivered by student peer educators to student groups on request. The Personal Security Work shops are interactive: participants discuss their personal security con cerns on campus and engage in scenarios to consider options for reducing their personal security risks. The peer educators record the partici pants personal security concerns. comments and complaints and forward them to the Personal Security Coordinator and to the AMS Safety Commis sioners. The WSO Safer Campus peer educators also offer Acquaintance Sexual Assault workshops for students which involve the screening of a related video, followed by group discussion and debriefing. As part of the program, the student peer educators provide information and increase awareness through display tables at Orientation programs and related events such as Acquaintance Sexual Assault Awareness Day.
b) Safety Guide

The WSO publishes the 19 page Safety Guide which was partially funded through the 1994-1995 Safer Cam puses Initiative funding for promotiona material. The Safety Guide contains relevant information and advice for all members of the UBC community and is available on disk for interested institutions and on a "home page" on the internet.

## 4. The Equity Office:

Under the direction of the Associate Vice President. Equity. the Equity Office has administrative responsibility
or employment and educational equity programs as well as implementation of UBC's policy on Discrimination and Harassment. The Equity Office offers both complaint processing and resolu tion procedures as well as education and training to all members of the UBC community. With funding from the 1994-1995 Safer Campuses Initiative the Equity Office conducted a series of workshops on discrimination and harassment awareness during May and June 1995 for two hundred UBC administrators, staff. faculty, and students. Over 90 percent of participants rated these workshops overall as "very good" to "excellent" and reported that they would recommend the workshop to others

## 5. Parking \& Security Services:

a) Security Bus Service:

Parking and Security Services operates the security bus to provide transportation for people concerned about safety travelling on campus. The Security Bus is one of the most visible safety programs at UBC and is heavily used by both employees and students. The bus runs weeknights from 4:00 p.m. to midnight during the academic year. The bus will pick up passengers at the entrance to the Main Library or by prior telephone arrangement. In the Spring term of 1996, through funding provided by the office of the Vice President, Student and Academic Services. a second security bus will be added on a trial basis which will provide service on a scheduled route from 6:00 p.m. to 2:00 a.m., Monday through Friday nights. The pilot service will be operated by Parking \& Security Services and a user survey wil be conducted to determine if a scheduled security bus service should be in operation at UBC.

## b) Education and Awareness:

Parking and Security Services publishes brochures related to safety on campus: "Challenging Strangers" and "Personal Security in the Workplace". Parking \& Security received some funds from the 1994-1995 Safer Campuses Initiative to offset the ongoing publish ing costs of these pamphlets. As well, security staff are available to assist the UBC community regarding issues such as improved locking and alarm systems.
c) "Rape Aggression Defence" course:

Parking and Security Services provides self defence training for women on campus (students, faculty and staff) through the "Rape Aggression Defence" course, which received partial funding from the 1994-1995 Safer Campuses Initiative to offset the initial start-up costs of the course.
d) Parking Regulations:

All of the metered parking spaces on campus are free from 5:00 p.m. to 7:00 a.m. to provide parking spaces close to buildings and populated areas after hours. In addition, several of the faculty and staff lots close to buildings are unrestricted after 5:00 p.m. allowing free parking for those persons who do not have a faculty or staff permit.
6. The Alma Mater Society ("AMS"): a) SafeWalk Program:

The AMS sponsors a volunteer "walk home" program during the school year (September through April) which is accessible to all members of the UBC community and which has been "in service" since 1990. The service oper ates Monday through Saturday from 5:00 p.m. to 1:00 a.m. and until 11:00 p.m. on Sundays Volunteers conduct
"spot audits" while on duty and forward heir reports to the Personal Security Coordinator and the AMS Safety Commissioners

SafeWalk is coordinated by a paid student Coordinator and the volunteers participate in campus events with display tables and information handouts. On October 6, 1995, SafeWalk sponsored a "Safer Campus Awareness Day" information forum in the SUB concourse. The SafeWalk Coordinator was a panelist in the October 27, 1995 "Your UBC" forum on campus safety. b) Safety Commissioners:

The AMS has two Safety Commissioners who are responsible for increasing awareness about safety issues on campus among the student body. The Safety Commissioners provide information at campus events and solicit students' concerns about personal safety and helped with the Student Safety Audit (see paragraph 2b). As well, the Safety Commissioners act as laisons with other campus groups to help resolve student concerns

## 7. Residence Programs:

The Residence Advisors organize workshops for residence students on the following topics related to safety: personal security, sexual assault awareness and prevention, "Wen-Li-Do" self defence classes, masculinity workshops and assertiveness for women. As well, in family and faculty housing, a program in children's safety is available for interested parents. Individual residences (Totem and Vanier) organize "walk home" programs between floors and distribute "safety cards" printed with emergency numbers and the "SafeWalk" number with a quarter taped to the back.
The residence contract encompasses discipline for propping open residence doors or unauthorized copying of keys as it jeopardizes the safety of all residents. The residence staff will change the locks on room doors when a lock has been tampered with or when the key has been lost or stolen All of the residences have "peepholes" in the doors (except Thunderbird) and staff will install chain locks and deadbolts on request. All of the residences, except Thunderbird, have a staffed 24 -hour service desk for the safety and security of all residents
and the staff conduct regular patrols through the residences in the evening.

## 8. Safer Campuses Initiative funding:

The Ministry of Skills, Training \& Labour, through its 1994-1995 Safer Campuses Initiative, provided $\$ 55,000$ to every post-secondary institution in the province as "seed money" for projects to improve campus safety. UBC requested and received an additional $\$ 5,000.00$ for the Equity Office's discrimination and harassment training program. Based on a proposal submitted to the Ministry by the PSAC, the funding was allocated as follows:

- $\$ 18,000$ for personal security training for students
$\$ 23,000$ for training on discrimina tion and harassment issues
\$12,000 for promotional material concerning safety on campus and personal security;
$\$ 3,500$ for personal security review audit program; and
- $\$ 3,500$ for self defence training on campus.
Additional information on the Safer Campuses Initiative funding is provided in the relevant sections of this report. The Ministry has indicated that the

Safer Campuses Initiative funding for 1996-1997 will likely be $\$ 25,000.00$ per post-secondary institution

## 9. Safer Campuses Initiative Minor Capital funding:

Campus Planning \& Development estimates that UBC has spent approxi mately \$600,000.00 of institutional minor capital funds for lighting projects (about \$150,000-\$200,000 per year) prior to the 1994-1995 fiscal year. As well, approximately $\$ 50,000.00$ per year of capital funding is spent to improve campus signage to reduce confusion and improve physical orientation. UBC spends about $\$ 150,000.00$ per year on "general safety issues" which, although not considered part of the Safer Campuses Initiative, encompasses such items as fire alarms and hand railings which contribute to an increased feeling of safety on the campus.

The Ministry provided $\$ 450,000.00$ to UBC for minor capital projects related to safety on campus, through the Safer Campus Initiative. Campus Planning $\&$ Development allocated the funds in consultation with the Personal Security Advisory Committee and the Personal Security Coordi nator. The minor capital funds will provide lighting upgrades on campus in areas "of concern" (e.g. near the MacMillan building, around the Anthropology and Sociology buildings and near the Health Sciences area) and will provide exterior emergency "blue light" telephones in "strategic" areas. The emergency telephones, in particular, are a very visible "symbol of safety and will help decrease the fear of random victimization. As well, $\$ 80,000$ of the minor capital funds have been set aside for "readily achievable" projects up to a maximum of \$10,000 per project.

## II. Reports on Safety Concerns <br> "Your UBC" forum on Campus Safety:

The Personal Security Coordinator chairs the subcommittee on student safety of the Campus Advisory Board on Student Development ("CABSD") which reports to the Vice President, Student \& Academic Services, and other CABSD members. On October 27, 1995. the CABSD sponsored an "open mike" forum in the SUB on safety on campus. The forum was moderated by Dr. Maria Klawe. Vice President Student \& Academic Services. The following participated as panelists: the Personal Security Coordinator; the Director of Parking \& Security Services; David Grigg, Manager of Engineering Services, Campus Planning \& Development; the Associate Director, Trades \& Utilities Division, Plant Operations; the Residence Life Manager of Totem Park for Housing \& Conferences; the AMS SafeWalk Coordinator; the AMS Vice President; a Co-Coordinator of the Women Students' Office Safer Campus Peer Educator Program; and the AMS Safety Commissioners. As well, Ruth Patrick and Suzanne Dodson from the Main Library and Heather Hermant and Mike Hughes, the student representatives to the Board of Governors were available as resource persons in the audience.
Students at the forum expressed concern about the lighting levels at UBC, the lack of emergency telephones and the security bus service. As well, students reiterated that they felt that information about incidents at UBC was not disseminated to the community in a regular and timely manner. The students provided written comments and feedback on forms that were distributed during the forum. A
summary of the questions and re sponses was published in the Ubyssey. As a direct result of the forum, the Vice President Student and Academic Services initiated and funded the second security bus pilot project, additional student monitors in the Main Library, and upgraded equipment for the SafeWalk program. In addition, the office of the Vice President, Student and Academic Services working with Plant Operations created a campus e mail address at Plant Operations to report lights that are burned out on campus-lights.out@plantops.ubc.ca.

## 2. "Student Safety at UBC" - Dr. D.H

## Currie

Dr. Dawn Currie, a UBC Sociology professor, conducted a survey of undergraduate students in 1993 1994 to determine their feelings of safety at UBC. The survey results were released to the UBC community through the Provost's office in the summer of 1995 . Currie found that a larger proportion of women students (approximately $57 \%$ of the respondents) worry about their safety on campus "a fair amount" or "a lot", as compared to $45.4 \%$ of men respondents who don't worry about their safety at all. Currie's findings sup port the conclusion that a number of students restrict their activities at UBC out of fear for their persona safety: she found that $66.3 \%$ of women and $22 \%$ of men claimed that they would use the campus more extensively if they felt safer. The majority of women respondents $(90 \%)$ and half the men ( $50 \%$ ) indicated that they already take precautions for their safety. $62.6 \%$ of the women and $32 \%$ of the men responding to Currie's survey disagreed with the statement "UBC administrators care a lot about my safety" and Currie found that the longer a student was at UBC (i.e. the further through their course of study) the more likely it was that the student would disagree with the statement. The survey findings indicate that students are very reluctant to report any incidents to persons in authority at UBC (either PASS or the RCMP): Currie found that only $8.9 \%$ of women and $10.3 \%$ of men surveyed involved in an incident reported it to someone in authority in the previous year.

## 3. Graduate Students' Survey:

The findings of Currie's report are echoed in the "Graduate Student Survey" co-sponsored by the Women Students' Office, the Graduate Stu dents' Society and the Faculty of Graduate Studies which was conducted in 1994 and published in September 1995 and which asked some questions about safety. The survey indicates that safety is one of the major concerns of women students at UBC and is not an uncommon concern to men students. In that survey:

- $26 \%$ of women and $2 \%$ of men "often" or "almost always" feel unsafe on campus;
- almost $2 / 3$ of women respondents were dissatisfied with campus security whereas about $55 \%$ of men respondents were very or moderately satisfied with campus security;
- $22 \%$ of women and $11 \%$ of men respondents reported some form of unwanted sexual attention during their UBC graduate programs;
- $44 \%$ of women and $30 \%$ of men respondents agreed that more attention should be given to racial/ ethnic issues; and
- $55 \%$ of women and $33 \%$ of men respondents agreed that more
attention should be given to gender issues.


## 4. UBC Safety Issues Report:

In 1993, working with the department of Campus Planning \& Development, a consultant, Carolynn Hatten, prepared a report entitled "UBC Safety Issues" (the "Hatten Report"). The Hatten Report's purpose was to review existing UBC systems and procedures and to present a series of strategies and recommendations designed to optimize public safety in the physical environment at UBC.

## 5. President's Advisory Committee on Women's Safety on Campus ("PACOWSOC"):

PACOWSOC was formed in Octobe 1991 by the Advisor on Women and Gender Relations to examine issues of physical safety and the attitudinal climate which influences women's safety. PACOWSOC was disbanded in 1994 with the formation of the Personal Security Advisory Committee (see section 1). PACOWSOC reviewed a number of UBC programs. including proposals for improved outdoor lighting, security bus schedule and route. the roles of the RCMP and Parking $\&$ Security Services in providing personal safety, outdoor emergency phones, and the Human Rights Policy proposal (now the policy on Discrimination and Harassment). As well, the Committee sponsored a survey of faculty women at UBC which was conducted in the fall of 1992. Safety concern was a componen of the survey of women faculty: $31 \%$ of the respondents reported at least one incident where their safety was threatened on the UBC campus: the majority of the respondents indicated that safety was a major concern for them and that they would work on campus more frequently on the weekends and in the evening if they felt safer.

## III. Summary:

In 1995, the University's personal security program received a very visible boost through the provincial Safer Campuses Initiative funding for programs and for minor capital projects. With initial "seed money" from the Ministry of Skills, Training and Labour, UBC was able to implement the following programs: Personal Security Workshops for students; the Women Students' Office Safety Guide; Personal Security Review Audits by the Local Safety Committees; training on discrimination and harassment issues through the Equity Office: the "Rape Aggression Defence" program through Parking and Security Services; and increased promotion of the ongoing activities at UBC.
Ministry funding through the Safer Campuses Initiative may not continue in the future, depending on the incumbent provincial government. However, the University provides ongoing financial support to some of the above programs and others such as the Personal Security Coordinator's salary, Personal Security Workshops for employees, and the Secu rity Bus, illustrating the institution's strong commitment to personal security. As well, the Alma Mater Society provides ongoing financial support for its SafeWalk program, the Safety Commissioners and the Student Safety Audit.
The administration at the University of British Columbia is very aware that safety and personal security are concerns for its students and is making every attempt to ameliorate conditions at the University so that everyone can study and work in a comfortable, safe environment.

The Board of Governors took the following actions at its meetings held on November 16. 1995. and January 25. 1996.

## Strategic Planning and Property

A contract was awarded to Swagger Construction Ltd. for the construction of the Forest Sciences Centre (inclusive of the Advanced Wood Products Processing Centre).

## Finance

In 1994, the Dean's Advisory Commit tee considered a series of proposals relating to guidelines for the establish ment and annual changes to a variety of student related fees. excluding tuition fees. These proposals were endorsed by the Committee. and approved by the Board of Governors at its October 1994 meeting.
The Board of Governors at its meeting on November 16. 1995, approved the Special Fee increases for 1996-97 noted in the accompanying table. The fee changes are consistent with the guidelines approved for each category of student related fees.

The Board approved the President's proposal for market-based tuition for International students, and noted the Administration's International Student Tuition Implementation Plan.

## Academic and Student Affairs

Acting on Senate recommendations, the Board approved the following:

- The merger of the Departments of Geological Science and Oceanography. and the Geophysics section of Geophysics and Astronomy into a new single department named the "Department of Earth and Ocean Sciences.
The merger of the Geophysics and Astronomy with the Physics Depart ment to form the "Department of Physics and Astronomy"was approved fo take place at the time of dissolution of the Geophysics and Astronomy Department.)
- Merger of the Departments of Chemical Engineering and BioResource Engineering into a new single department named the Department of Chemical and BioResource Engineering" effective April 1. 1996.
- The amalgamated units (Resource Management and Environmental Studies and Westwater Research Centre) were given the new name "Institute for Resources and Environment (IRE).
Curriculum proposals from the faculties of Agricultural Sciences. Applied Science, Arts. Dentistry. Forestry, Graduate Studies, Medi cine. Science and the School of Rehabilitation Sciences.
- The establishment of the Brain and Spinal Cord Research Centre.
The Board approved the following Endowment Deeds:
- Dofasco Chair in Advanced Steel Processing
- George Woodcock Canadian Litera ture and Intellectual Freedom
- Seniors Foundation Professorship in Geriatric and Outreach Dentistry
- Maurice Young Entrepreneurship and Venture Capital Research Centre
- Women Students’ Safety Programs


## Employee Relations

The Board approved salary changes for the following groups:

Management and Professional Staf (1994-95 and 1995-96).
Technicians and Research Assistants (1994-1998)
The Board approved a five year collective agreement between the University and IUOE Union Local \#882 effective April 1, 1994, to March 31, 1999.
Amendments to the Staff Pension Plan were approved. Three separate amendments to the Plan had been proposed for the following purposes:

- To insert administrative amend ments to certain provisions in the December 19. 1991, Plan Amend ment and subsequent amendments to such provisions.
- To comply with the Income Tax Act (Canada) and Regulations.
- To comply with the Pension Benefits Standards Act and the Family Relations Act, and to insert certain amendments to clarify drafting in prior text and to reflect changes in administrative practice and policy.
The Board noted that Staff Pension Plan members had been notified of the changes required by the regulatory authorities or as a result of the Restatement project in a special edition newsletter and open information meeting.


## Policies

The Board approved a policy with respect to the appointments of Vice Presidents fother than the Vice President Academic \& Provost

## Appointments

Dr. Bernard E. Bressler was appointed Vice-President. Research for a four-year term with effect from January 1, 1996.
Dr. Bernard Bressler was also appointed to the Board of Directors of each of the following organizations to replace Dr. M. Salcudean

- B. R. Centre Limited
- Discovery Foundation
- Discovery Parks Inc.
- TRIUMF
- UBC Research Enterprises Inc.

The Board approved the appointment of Dr. Connie J. Eaves as UBC's third member of the TRIUMF Board of Management to replace Mr. Denzil Doyle for a period of three years from December 1, 1995.
Dr. David Hardwick was named as the continuing UBC representative on the newly combined B.C. Women's/B.C. Children's/Sunny Hill Hospital Group Board.
The Board accepted the resignation of Mr. Keith Bowler as a Director of the UBC Staff Pension Board effective December 31. 1995. and appointed Mr. Ron Burke, Acting Manager. Donor Relations. Development Office as a Director of the UBC Staff Pension Plan to replace Mr. Bowler.

## November 1995

The Board of Governors at its meeting of November 16. 1995 approved the following recommendations and received notice about the following items:

## APPOINTMENTS

Peter Stenberg, Acting Head. Department of Germanic Studies. Sept 1. 1995 to June 30. 1996.
Ronald MacGregor. Acting Head, Department of Curriculum Studies. Sept 1. 1995 to Feb 29. 1996.
Peter C. Wing, Acting Head. Department of Orthopaedics, Oct 1, 1995 to Dec 31, 1995.

| 1996/97 Approved Changes to Special Fees |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Current \$ | Approved \$ | \% Change |
| I. APPLICATION PROCESSING FEES |  |  |  |
| General University |  |  |  |
| - within BC | 20.00 | 20.75 | 3.80\% |
| - non BC | 30.00 | 31.00 | 3.30\% |
| Faculty of Agricultural Sciences |  |  |  |
| A. Bachelor of Landscape Architecture |  |  |  |
| - within BC | 35.00 | 36.25 | 3.60\% |
| - non BC | 50.00 | 51.75 | 3.60\% |
| B. Management of Aquacultural Systems | 0.00 | 40.00 | N/A |
| Faculty of Commerce \& Business |  |  |  |
| Admin - MBA Program |  |  |  |
| - within BC | 75.00 | 100.00 | 33.30\% |
| - non BC | 75.00 | 100.00 | 33.30\% |
| Faculty of Dentistry |  |  |  |
| - within BC | 50.00 | 100.00 | 100.00\% |
| - non BC | 75.00 | 150.00 | 100.00\% |
| Faculty of Education |  |  |  |
| - within BC | 42.00 | 43.50 | 3.60\% |
| - non BC | 52.50 | 54.25 | 3.30\% |
| Faculty of Graduate Studies | 50.00 | 51.75 | 3.50\% |
| Faculty of Law |  |  |  |
| - within BC | 42.00 | 43.50 | 3.60\% |
| - non BC | 68.25 | 70.50 | 3.30\% |
| Faculty of Medicine |  |  |  |
| - within BC | 52.50 | 54.25 | 3.30\% |
| - non BC | 79.00 | 81.75 | 3.50\% |
| Dental Hygiene Program | 42.00 | 43.50 | 3.60\% |
| School of Rehabilitation Sciences |  |  |  |
| - within BC | 52.50 | 54.25 | 3.30\% |
| - non BC | 79.00 | 81.75 | 3.50\% |
| II. OTHER FEES |  |  |  |
| Co-operative Education Program (per course) | e) 226.75 | 231.00 | 1.90\% |
| Co-op Education |  |  |  |
| Work Terms | 226.75 | 351.75 | 55.10\% |
| Work Shops | 0.00 | 75.00 | n/a |
| Dentistry |  |  |  |
| Short term visiting students | 50.00 | 51.00 | 2.00\% |
| Deferred examination at standard centres (per paper) | 20.00 | 20.25 | 1.20\% |
|  |  |  |  |
| at special centres (per paper) | 55.00 | 56.00 | 1.80\% |
| Dishonoured cheque | 15.00 | 15.25 | 1.70\% |
| Duplicate tuition fee receipts | 5.00 | 5.00 | 0.00\% |
| Education |  |  |  |
| Special Tuition Fee for MEd courses <br> (partially offered outside Lower Mainland) |  |  |  |
| (paid in a minimum of nine installments) | s) variable | variable | N/A |
| GIS special examination |  |  |  |
| (where permitted) (per paper) | 40.00 | 40.75 | 1.90\% |
| Library (Replacement Cards) | 6.00 | 6.00 | 0.00\% |
| Pharmaceutical Sciences |  |  |  |
| BSc practice fee for students in 4th year (effective September 1995) | 200.00 | 203.75 | 1.90\% |
| Review of Assigned Standing (per course) | 25.00 | 25.50 | 2.00\% |
| Special Invigilation and 25.50 |  |  |  |
| Outside Exam Centre Fee (per paper) | 55.00 | 56.00 | 1.90\% |
| Supplemental examination at UBC |  |  |  |
| Supplemental examination at standard centres (per paper) | 30.00 | 30.50 | 1.70\% |
| III. Calendar fees |  |  |  |
| Calendar (printed or CD including GST) |  |  |  |
| - picked up | 4.00 | 4.00 | 0.00\% |
| - mailed out |  |  |  |
| - Canada | 8.75 | 9.00 | 2.80\% |
| - USA | 10.50 | 10.75 | 2.40\% |
| - Outside North America | 13.50 | 13.75 | 1.80\% |
| IV. TRANSCRIPT OF ACADEMIC RECORD |  |  |  |
| Single Copy | 4.00 | 4.00 | 0.00\% |
| Additional copies ordered at the same time for printing on the same day, |  |  |  |
| Additional fee for facsimile transmission, each copy |  |  |  |
| - Canada \& USA | 5.00 | 5.00 | 0.00\% |
| - outside Canada \& USA | 10.00 | 10.23 | 2.50\% |
| Additional fee for courier delivery, each copy |  |  |  |
| - Canada | 12.00 | 12.25 | 2.10\% |
| - USA | 18.00 | 18.25 | 1.40\% |
| - outside Canada \& USA |  | pends on dest | ination |
| V. FIELD TRIP FEES |  |  |  |
| Forestry 451 | 545.00 | 585.00 | 7.3\% |
| Agricultural Sciences 301 | 0.00 | variable | N/A |
| Agricultural Sciences 300 | 233.00 | 260.00 | 11.60\% |
| NOTE: All fees are rounded to the nearest . 25 |  |  |  |

## THE UNIVERSITY OF BRITISH COLUMBIA

## UBC Gazette

## November 1995 (cont.)

Susan A. Baldwin. Assistant Professor Department of Bio-Resource Engineer ing, Nov 1, 1995 to June 30, 1998.
Edward Putnins. Assistant Professor Department of Clinical Dental Sciences. Nov 1, 1995 to June 30, 1998
David R. Stapells, Associate Professor. School of Audiology \& Speech Sciences, July 1, 1996 (tenured).
Betty Calam, Assistant Professor Department of Family Practice, July 1 1995 to June 30. 1998.

## OMISSION FROM LAST GAZETTE

Phillip E. Harding. Promotion to
Professor, Department of Classical. Near Eastern, \& Religious Studies, July 1, 1995.

## RESIGNATIONS

Donald W. Gillies. Assistant Professor.
Department of Electrical Engineering. Aug 31. 1995.
Rebecca L. Collins, Assistant Professor, Department of Psychology, Aug 31. 1995.

Noel Hall, Professor. Faculty of Commerce \& Business Administration. Dec 30, 1995.
Barry J. Snow, Assistant Professor
Department of Medcine, Nov 30, 1995
Restrepo, Rodrigo A.. Professor.
Department of Mathematics, Dec 30 1995.

## CORRECTION ON LAST GAZETTE

(Approved at May 95 Board Meeting) Nancy Jane Hermiston. Associate Professor, School of Music, July 1. 1995 to June 30. 1998.

## January 1996

The Board of Governors at its meeting of January 25, 1996 approved the following recommendations and received notice about the following items.

## APPOINTMENTS

Jon E. Shapiro, Acting Associate
Dean, Faculty of Education. July 1. 1995 to June 30, 1996.
Sie-Tan Chieng. Acting Head. Depart ment of Bio-Resource Engineering, Jan 1, 1996 to Mar 31, 1996.
Richard W. Lawrence, Acting Head, Department of Mining \& Mineral Process Engineering, Jan 1. 1996 to June 30, 1996.
Alan D. Martin, Acting Director. School of Human Kinetics. Jan 1. 1996 to June 30, 1996
william Ovalle, Acting Head. Depart ment of Anatomy. Jan 1, 1996 to Dec 31. 1996.

Gregory G. Fahlman, Acting Head, Department of Geophysics \& Astronomy, Jan 8, 1996 to June 30. 1996
Tarek A. Sayed, Assistant Professor. Department of Civil Engineering, Jan 1, 1996 to June 30, 1999.
Takahide Niimura, Assistant Professor, Department of Electrical Engineernig. Jan 1, 1996 to June 30, 1999.
Ralph Hackl, Assistant Professor, Department of Metals \& Materials Engineering. Jan 1, 1996 to June 30. 1999.
Mary Agnes Wells, Assistant Professor, Department of Metals \& Materials Engineering, Jan 1, 1996 to June 30, 1999 Lori Kennedy. Assistant Professor. Department of Geological Sciences. Feb 1, 1996 to June 30, 1999.
Robert S. Orr, Professor, Department of Physics, July 1. 1996 (tenured).

## RESIGNATIONS

Victor C. Runeckles, Professor, Department of Plant Science. Dec 30. 1995.
Gerald R. Brown, Associate Professor, Department of Civil Engineering. Dec 29, 1995.
Floyd St. Clair, Assistant Professor, Department of French, Dec 30, 1995. John G. Silver. Associate Professor, Department of Clinical Dental Sciences. Dec 31, 1995.

Keith Dawson, Professor. Department of Medicine. Dec 30. 1995.
Walter C. MacDonald, Associate Professor. Department of Medicine. Dec 30, 1995.
Samuel T. Chanson, Professor.
Department of Computer Science, June 30. 1996.

Susan W. Kieffer, Professor, Department of Geological Sciences. Dec 31. 1995. Herbert Gush. Professor, Department of Physics. Dec 30, 1995.
Hans Burndorfer, Administrative Librarian 2. Library. Dec 30. 1995. Johann van Reenen, Administrative Librarian 3. Library, Feb 15. 1996. S. Venkataraman, General Librarian, Library. Dec 30. 1995.

## DEATHS

The Board learned. with regret, the death of:
Margaret Smith. Assistant Professor, School of Nursing, Dec 10, 1995.

## leaves of absence

STUDY LEAVES
AGRICULTURAL SCIENCES
Robert Blair, Department of Animal Science, Jan 1, 1996 to June 30, 1996. APPLIED SCIENCE
Ron Walkey. School of Architecture. July 1. 1996 to Dec 31, 1996.
Perry E. Adebar, Department of Civil Engineering, Jan 1, 1996 to Dec 31. 1996. Nemkumar Banthia. Department of Civil Engineering. Jan 1. 1997 to June 30. 1997.

Francis P.D. Navin, Department of Civil Engineering. July 1, 1996 to June 30, 1997.
M.C. Guick. Department of Civil Engineering, Jan 1. 1997 to June 30. 1997 R.G. Sexsmith, Department of Civil Engineering. July 1, 1996 to Dec 31 , 1996.

Chris C.H. Ma, Department of Electrical Engineering, Jan 1, 1996 to Dec 31, 1996. Ian S. Gartshore. Department of Mechanical Engineering, Sept 1, 1996 to Aug 31. 1997.
John A. Meech, Department of Mining \& Mineral Process Engineering. July 1. 1996 to June 30, 1997.
Rimas Pakalnis. Department of Mining \& Mineral Process Engineering, Sept 1, 1996 to Aug 31. 1997.
ARTS
Graham Edwin Johnson. Department
of Anthropology \& Sociology, Sept 1. 1996 to Aug 31. 1997.
William McKellin, Department of Anthropology \& Sociology, Jan 1. 1997 to June 30, 1997.
R.G. Matson, Department of Anthropology \& Sociology, Sept 1, 1996 to Aug 31, 1997.
Blanca Muratorio, Department of Anthropology \& Sociology. Jan I. 1997 to June 30, 1997.
J.V. Powell, Department of Anthropology \& Sociology, July 1, 1996 to June 30, 1997.
Robert S. Ratner, Department of Anthropology \& Sociology. Jan 1. 1997 to Dec 31. 1997.
Phillip Edward Harding. Department of Classical, Near Eastern, \& Religious Studies. July 1. 1996 to June 30. 1997. James Russell, Department of Classical, Near Eastern, \& Religious Studies, cal, Near Eastern, \& Religious Studies,
Sept 1, 1996 to Aug 31, 1997. Sept 1, 1996 to Aug 31, 1997.
Robert B. Todd, Department of
Classical, Near Eastern, \& Religious Studies. Jan 1. 1997 to June 30. 1997. John Xiros Cooper. Department of English. Sept 1, 1996 to Aug 31, 1997. Susanna Egan, Department of English, July 1, 1996 to June 30, 1997.
Sherrill E. Grace, Department of English. July 1, 1996 to June 30, 1997.
Ronald B. Hatch, Department of English. Sept 1, 1996 to Aug 31, 1997. Ira B. Nadel, Department of English, July 1. 1996 to Dec 31, 1996.
Stephen B. Partridge, Department of English. Sept 1, 1996 to Aug 31. 1997.

Peter Allan Guartermain. Department of English. Sept 1. 1996 to Aug 31. 1997. Mark Vessey. Department of English, July 1, 1996 to June 30. 1997.
Michael Church, Department of Geography. Sept 1. 1996 to Aug 31. 1997
Douw G. Steyn, Department of Geography, July 1. 1996 to June 30. 1997. Steven Taubeneck. Department of Germanic Studies, Sept 1. 1996 to Aug 31. 1997.

Joy Dixon, Department of History. Sept 1. 1996 to Aug 31. 1997
Christopher R. Friedrichs, Department of History. Sept 1, 1996 to Aug 31. 1997.

Diana Lary, Department of History, Jan 1, 1997 to June 30, 1997.
Allan Smith, Department of History July 1. 1996 to June 30. 1997 Peter Danielson. Department of Philosopy. July 1, 1996 to June 30. 1997. Steven F. Savitt, Department of
Philosopy. July 1. 1996 to June 30. 1997. Gary Wedeking, Department of Philosopy July 1, 1996 to June 30. 1997.
Avigail I. Eisenberg, Department of Political Science. July 1. 1996 to June 30, 1997.
George Feaver, Department of Political Science. Sept 1, 1996 to Aug 31. 1997. Peter Loeffler, Department of Theatre \& Film, Jan 1, 1996 to June 30, 1996. Brian Mcllroy, Department of Theatre \& Film, Jan 1, 1996 to June 30, 1996. COMMERCE \& BUSINESS ADMINISTRATION
Iain Cockburn. July I. 1996 to June 30. 1997.
R. Glen Donaldson, Sept 1, 1996 to Aug 31, 1997.
Nancy Langton, July 1, 1996 to June 30, 1997.
William Strange, July 1. 1996 to June 30, 1997.

## education

Bonita C. Long. Department of Counselling Psychology, July 1, 1996 to Dec 31. 1996.

Marvin J. Westwood, Department of Counselling Psychology. Jan 1. 1997 to June 30. 1997
Ann Anderson, Department of Curriculum Studies, Sept 1, 1996 to Aug 31. 1997.

Peter Gouzouasis, Department of Curriculum Studies. July 1. 1996 to Dec 31. 1996.
Linda Peterat, Department of Curriculum Studies. July 1, 1996 to June 30. 1997. William M. Reynolds. Department of Educational Psychology \& Special Education. July 1, 1996 to Dec 31, 1996.
Leslie G. Roman, Department of Educational Studies, July 1, 1996 to June 30. 1997.
Kjell Rubenson, Department of Educational Studies. Sept 1. 1996 to Aug 31. 1997.
Jim Anderson, Department of Language Education, Sept 1, 1996 to Aug 31, 1997.
Robert D. Chester, Department of Language Education, July 1, 1996 to June 30, 1997
Carl Leggo, Department of Language Education, Sept 1, 1996 to Aug 31, 1997 FORESTRY
Valerie LeMay, Department of Forest Resources Management, July 1. 1996 to June 30. 1997.
GRADUATE STUDIES
Timothy L. McDaniels, School of
Community \& Regional Planning, July 1. 1996 to June 30, 1997.

MEDICINE
Robert E. Modrow, Department of Health Care \& Epidemiology, Jan 1. 1997 to June 30. 1997
Brenda J. Morrison. Department of Health Care \& Epidemiology, July 1 1996 to June 30. 1997
Katherine Teschke. Department of Health Care \& Epidemiology, Jan 1.
1997 to Dec 31. 1997.

William L. Maurice, Department of Psychiatry. Sept 1. 1995 to Apr 30, 1996. SCIENCE
David Dolphin, Department of Chemistry. July 1. 1996 to June 30. 1997. David C. Walker, Department of Chemistry. July 1. 1996 to June 30. 1997.
Rosemary Knight, Department of Geophysics \& Astronomy. Jan 1, 1996 io June 30, 1996.
F.L. Curzon, Department of Physics, July 1. 1996 to June 30. 1997.
Walter N. Hardy, Department of Physics, July 1. 1996 to June 30. 1997.
Peter W. Martin, Department of
Physics. Sept 1. 1996 to Aug 31. 1997. Jian Liu, Department of Statistics. July 1. 1996 to June 30. 1997. David R. Jones, Department of Zoology July 1. 1996 to June 30. 1997.
N.R. Liley, Department of Zoology

Sept 1. 1996 to Aug 31. 1997.
John D. McPhail, Department of Zoology. Sept 1. 1996 to Aug 31, 1997. VP STUDENT \& ACADEMIC SERVICES Janice Kreider. Library, July 1, 1996 o June 30. 1997
CANCELLATIONS OF STUDY LEAVES MEDICINE
David Matheson. Department of Paediatrics. July 1. 1995 to Dec 31. 1995.
ChANGES TO STUDY LEAVES
COMMERCE
Maurice Levi, from July 1. 1995 June 30, 1996 to Jan 1, 1997 - June 30. 1997.

Education
Billie Housego, Department of Educaional Psychology \& Special Education. from Sept 1, 1995 - Aug 31, 1996 to Jan 1. 1996 - June 30. 1996.
Janet Jamieson, Department of Educational Psychology \& Special Education. from Jan 1. 1996 - Aug 31 1996 to Jan 1. 1996 - June 30. 1996. SCIENCE
R.L. Chase. Department of Geological Sciences, from Jan 1. 1996 - Dec 31. 1996 to July 1. 1996 - June 30, 1997.

## OTHER LEAVES

Applied SCIENCE
L.M. Wedepohl, Department of Electriral Engineering. Jan 1. 1996 to July 31. 1996.

APPLIED SCIENCE/ARTS
David McClung, Departments of Civil Engineering/Geography. Nov 1. 1995 to Dec 31. 1995.
ARTS
Jeff Wall, Department of Fine Arts,
July 1. 1996 to June 30. 1998.
Masaru Kohno, Department of Political Science. Sept 1. 1996 to Aug 31, 1997. David J. Albert, Department of Psychology, Jan 1. 1996 to June 30, 1996. COMMERCE \& BUSINESS ADMINISTRATION
Gerald Gorn, July 1, 1996 to June 30. 1997.

Michael Tretheway, Jan 1, 1996 to June 30, 1996.
EdUCATION
Jon Douglas Willms, Department of Educational Studies. Sept 1, 1995 to Aug 31, 1996.
Robert Sparks, School of Human
Kinetics, Jan 1, 1996 to June 30, 1996. medicine
Roger Sutton. Department of Medicine. Jan 1, 1996 to Dec 31, 1996. Judith Vestrup, Department of Surgery, Sept 1, 1995 to Aug 31, 1996 SCIENCE
Evan Evans, Department of Physics, Oct 1, 1995 to Dec 31, 1995.

## administrative leaves

APPLIED SCIENCE
Sanford Hirshen, School of Architec ture, July 1, 1996 to Dec 31, 1996. Martha Salcudean, Department of Mechanical Engineering. July 1, 1996 to June 30, 1998.

## T-bird notes

By Don Wells
Thunderbird Athletics

## Awards, finals coming fast <br> It's rush hour on the information

 highway. That is to say. there is a lo of electronic paper moving around and between athletic department offices all across Canada this weekIn addition to hectic last minute preparatory work for upcoming championships, there is a plethora of nomination forms and ballot sheets for various CIAU awards and league all-stars. E-mail messages and faxes are flying between campuses like taxis on a Manhattan morning.

UBC, too. is struggling to meet the many deadlines, all the while prepar ing its own teams for Canada West Conference and CIAU National Championships. With three teams currently ranked number one in the nation, much success is anticipated in the weeks ahead. There is a feeling of frantic exhilaration over at War Memorial Gym. Coaches and administrators have been hustling around like vintners eager to harvest and bottle a grand cru on a vintage year

It's a good problem to have
On Feb. 23 the men's basketball team will begin to entertain either the Lethbridge Pronghorns or the Calgary Dinosaurs in a best-of-three CWUAA semi-final series on the War Memorial court. At precisely the same time, both the men's and women's swim teams will be entering a pool at the University of Guelph for the first set of finals of the three-day CIAU National Championships.
Like the men's basketball team (aka Chairmen of the Boards), UBC's

swim teams are currently ranked number one in Canada. The powerful women's team. led by world-ranked Olympic hopefuls Sarah Evanetz and Anita Lee. is considered a shoo-in to claim its third consecutive CIAU crown. The men appear to have finally caught up to their female counterparts, but will have to fend off a tremendous wave of talent from number-two-ranked McMaster and third-place Calgary.

Meanwhile, some of the league allstars have been announced and a handful of award nominations have been made official. Leading the list for UBC is Canada West all-star centre Doug Ast. The 22-year-old Arts student is a finalist for the Canada West Most Valuable Player Award, the Randy Gregg Award (athletics, academ ics and community service) and the UBC Alumni Trophy (sportsmanship and athletic ability). Ast who also plays for Roller Hockey International's Vancouver Voodoo, entered the UBC record books this season with 52 points in just 24 league games.

Volleyball middle blockers Tanya Pickerell and Joanne Ross have both been named first team CWUAA allstars while setter Jeanette Guichon was selected to the conference's second team. The resurgent T-Bird women's team remains focused on a berth at the CIAU Championships beginning February 29 at the University of Toronto.
Guy Davis, an 18 -year-old power hitter on the men's team, was named CWUAA Freshman of the Year while middle blocker Jeremy Westereng was selected a second team all-star T-Bird fans can keep up-to-date on the progress of all teams remaining in contention for Canada West and CIAU Championships by calling the 24 -hour athletic department hot-line, 822-BIRD.


Representatives from the provincial government's Information and Technology Access Office met recently with UBC representatives to discuss universal affordable access to information technology. Pictured (clockwise from middle left) are Ruth Patrick, Gerry Neufeld, Jim Tom, Mike Hrybyk, Jack Leigh, Glenn Webb, Maria Klawe, Michael Shoop, Bill Palm, and Jim Varah.

## UBC Gazette (cont.)

ARTS/GRADUATE STUDIES Laurie Ricou, Department of English \& Faculty of Graduate Studies, July 1 , 1996 to June 30, 1997.

## EDUCATION

James M. Sherrill, Department of Curriculum Studies, July 1, 1996 to June 30, 1997
Victor Froese, Department of Language Education. July 1. 1996 to June 30, 1997.
GRADUATE STUDIES
Lawrence W. Green, Institute of
Health Promotion Research, July 1,
1996 to Dec 31. 1996.
LAW
Albert J. McClean, Sept 1, 1995 to

Dec 31, 1996.
medicine
Martin J. Hollenberg, Department of Anatomy. July 1. 1996 to June 30. 1997. Jack Rootman, Department of Oph thalmology. Oct 1, 1995 to Apr 30. 1996.

David F. Hardwick, Department of Pathology, July 1. 1996 to June 30, 1997. SCIENCE
Robert M. Ellis, Department of Geophysics \& Astronomy, Jan 1. 1996 to Dec 31, 1996.
SCIENCE/GRADUATE STUDIES
David Randall, Department of Zoology \& Faculty of Graduate Studies. July 1. 1996 to June 30, 1997.


UBC's Thunderbird was among a crowd of Carnarvon Elementary students recently as part of an outreach program organized and operated by UBC students. The program calls on volunteer varsity athletes and students to encourage ongoing involvement in sports and recreation, self-esteem and goal-setting among youth.

## Students foster goals, dreams among youth <br> by Stephen Forgacs <br> Wendy Drumm. T-Bird hockey player

Staff writer
Chaos erupts in the Carnarvon Community School gymnasium when the Thunderbird emerges from the equipment room banging his drum.

Let's make some noise," urges Lisa Nahorniak. outreach officer for Thunder Productions.

The 60 Grade 6 and 7 students seated on the floor are glad to oblige with claps. hooting and shouts of "Hey. Mister Bird.

The noise and commotion would fit perfectly on the sidelines of any of the UBC Thunderbird sports teams' home games.

As the children settle down, it quickly becomes apparent that the outreach pro gram is trying to deliver a serious message.

The message. delivered by volunteer varsity athletes participating in the program, is based on the letters forming the word PRIDE. "P" is for positive mental attitude. " $R$ " is for respect. " $I$ " is for intelligent decision-making. " $D$ " is for dreaming dreams and goal setting. and " $E$ " is for effort in education.

Some of the primary goals of Thunder Productions and the outreach program are to raise awareness of the high-quality athletics programs at UBC and the calibre of our athletes, and also to encourage kids to stay involved with sports and education," Nahorniak says.

Since 1992, student-operated Thunder Productions has been involved in a range of activities in support of UBC's varsity teams and athletics program.
Many of the staff of roughly 15 students, who receive a stipend for their involvement, each put in as many as 20 hours a week into organizing half time shows for Thunderbird basketball, football, hockey and volleyball games. preparing promotional materials and visiting hospitals or schools like Carnarvon.

Varsity athletes volunteer their time accompanying a Thunder Productions staff member to schools or hospitals to share their experiences with children.
On Feb. 9. four student athletes joined Nahorniak and the Thunderbird to take the outreach message to the students The students, women's rugby player

Ryan Douglas, soccer player Lisa Archer and basketball player Paul Unruh. took turns talking to two groups of 60 stu dents.
"Who knows what intelligent decisionmaking means?" asks Archer, a Human Kinetics student. as hands go up around her.
"Making the right choices," a boy in the front row replies
"Right." says Archer. "IfI was a smoker do you think I could play competitive soccer?"

No." shout the children.
Dereck Dirom, promotions manager and a former varsity athlete, says Thunder Productions' biggest battle is raising awareness of its program among athletes.
"A lot of the coaches and athletes may not realize what the possible benefits of their involvement with our programs can be in terms of raising the profile of their sport and of UBC athletics in general," Dirom says

Thunder Productions is always look ing for new staff members.

This year a lot of our staff are leaving. So now would be a great time to have a few students in first or second year get involved with the program. Staff members gain experience in marketing, community outreach and event co-ordination. For students in Human Kinetics, Education. Commerce or any other area of study, it's a great way to practice what they're learning." he says.

Students interested in getting involved with any aspect of Thunder Productions. varsity athletes interested in volunteering with the outreach program, or teach ers who would like to have UBC athletes visit their school, can call 822-1358 for more information.

## Give Someone A SECOND CHANCE.

Discuss organ donation with your family and sign a donor card today.

The Kidney Foundation
of Canada

## News Digest

UBC's Faculty of Law will be the site of the 1996 Aboriginal Rights Moot. March 1-2.

A public forum for the debate of native rights issues by First Nations law students from across the country. the moot. or Kawaskimhon, was created by the Native Law Students Association of the University of Toronto in 1994.
Students from 11 law schools will participate in this year's event more than double the number of schools represented in 1995.
For the first time. the moot will be styled to invoke the aboriginal experience of the talking circle.
The public is welcome and admission is free. For more information, call 822-5559.

A course on Issues in Gender and Politics has been approved for the Political Science Dept. curriculum.
The course will be taught as a seminar, with topics including gender relations in politics. the state and the economy, current debates in feminist theory. women as political actors and the political economy of gender

The new seminar course will supplement a third-year lecture course, Gender and Politics, which is already being taught.
The seminar is one of five new political science courses recently approved by Senate. It could be offered by next January

Engineering student Michael Young has a bit more money than he'd counted on this term. Young won the UBC Bookstore's Win Your Texts Contest for the current term.
He received a cheque equal to the value of his second term text purchases from the Bookstore after his name was chosen from more than 7,000 entries.
UBC students have won more than $\$ 1.500$ in texts since these contests began in January. 1995.
"As well as providing lucky students with their term's texts. this contest encourages students to keep their sales receipts, resulting in faster refunds when returning books." said Vickie McLeod. Bookstore marketing co-ordinator

Nobel Laureate Michael Smith recently returned from a sevenlecture tour of Japan where his stops included Ritsumeikan University, Tsukuba University, the Protein Engineering Research Institute and a special event at the Canadian embassy in Tokyo.

Smith, director of UBC's Biotechnology Laboratory, spoke at the embassy at the invitation of the Canadian ambassador Donald Campbell, who was launching a program with the president of the Medical Research Council of Canada, Dr. Henry Friesen. to promote closer collaboration with Japan in medical and health research.

Meanwhile, Smith was recently made an honorary foreign member of the Korean Academy of Science and Technology. Smith is the first Canadian and one of only 21 scientists in the world to receive the distinction.

## Classified

The classified advertising rate is $\$ 15.75$ for 35 words or less. Each additional word is 50 cents. Rate includes GST. Ads must be submitted in writing 10 days before publication date to the UBC Public Affairs Office. 310-6251 Cecil Green Park Road Vancouver B.C., V6T 1Z1, accompanied by payment in cash, cheque (made out to UBC Reports) or internal requisition. Advertising enquiries: 822-3131

The deadline for the March 7. 1996 issue of UBC Reports is noon. February 27

## Services

FACULTY PENSION and RRSP Asse $\dagger$ Allocation Service. Let me remove the worry and hassle of making your pension and RRSP investment decisions! I use sophisticated computersoftware to analyse your investmen personality and retirement goals to optimize your entire retirement portfolio. Call Don Proteau. B.Comm., R.F.P. at 687-7526 to receive a free Asset Allocation Kit. References available. RETIRE EARLIER WITH MORE!

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CITY-WIDERELOCATIONSERVICES Furnishedresidences apartments condos, houses. Free registration - for additional details please call Erika (604) 730-9508.
ATHENAEUM SINICUM offers courses in Classical Chinese and in Mandarin for beginners intermediate and advanced learners; small classes, various locations, flexible schedule reasonable rates. Instructor Roberto K. Ong, PhD (Linguistics McGill). Inquiries 327-3097

Next ad deadline:
Noon, Feb. 27

Honda engineering makes 1996 the "Year of the Civic."


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POINT GREY GUEST HOUSE perfect spot to reserve accommodation for guest lecturers or other university members who visit throughout the year. Close to UBC and other vancouverattractions, a tasteful representation of our city and of UBC. 4103 W . 10th Ave. Vancouver. BC. V6R 2 H 2 . Phone or fax (604) 222-4104.
IINA'S GUEST HOUSE Elegant accom. in Pt. Grey area. Minutes to UBC. On main bus routes. Close to shops and restaurants. Inc. TV, tea andcoffeemaking, privatephone/ fridge. Weekly rates available. Cal 222-3461. Fax 222-9279.

GREEN COLLEGE GUEST HOUSE five suites available for academic visitors to UBC only. Guests dine with residents and enjoy college life. Daily rate $\$ 50$ plus $\$ 13 /$ day for meals Sun. -Thurs. Call 822-8660 for more information and availability.
SHORT TERM RENTAL Bright spacious ground floor 2 bedroom apartment, fully furnished and equipped, including piano washer and dryer. 5 blocks from UBC. May till late summer. Ideal for visiting prof. N/S, N/P. Child welcome. \$1000/month. Call 228-0782.
VANCOUVER/CENTRAL RICHMOND 3 bedroom, 2 baths furn. condo, 20 min . to UBC, 7 appliances, insuite laundry, mtn view, close to shopping, park. theatres, pools, etc. Available Apr-Aug/96, non-smokers, \$1200/ mo. (604) 231-063
BRIGHT, MEDITERRANEAN STYLE 2-3 bedroomfurnishedhouseinKitsilano Point. Available for $2+$ months. 5 yearoldhome with 3 decks, garden, 2 fireplaces, all appliances. Nonsmoking. 732-5803.

1934 TOWNHOUSE. Hardwood floors. Children welcome. No pets please. 11 th at Alma, 3 bedroom \$1,350.00. April 1st. Call 738-5838


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you to his recently opened salon in Kitsilano.
3432 W. Broadway 732-4240

## Forum

## Lesbian and gay custody: <br> What difference does difference make?

## By Susan B. Boyd

Susan Boyd is the Chair. Feminist Legal Studies and a teacher and researcher in the Faculty of Law. The following is based on a longer paper presented to a Family Law Conference organized by the Continuing Legal Education Society of B.C.
Where one parent identifies as lesbian or gay, disputes about custody or access of the children may be complicated by sexuality. This point was illustrated recently when a Florida judge granted custody to a father who had murdered his first wife rather than to the lesbian mother. The current stance in Canadian law is that sexual orientation per se should not be relevant to custody or access decisions. In conjunction with the shift away from fault-based family law. statutes now direct judges to focus on the best interests of the child. not the sexual conduct of the parent. Not all judges adhere to this principle, but more lesbians and gay men have abandoned the unhealthy practices of automatically relinquishing custody or access, or concealing their sexuality. This development, based on a somewhat more positive societal attitude positive societal attitude
toward lesbians and gays, is welcomed.
The more fair-minded approach does, however. contain pitfalls. Take, for example, the lesbian mother. Because of society's homophobia. her child may be the object of abuse or ridicule by other children if her sexuality is known. Many judges therefore give custody to the father, especially if he has a new female partner and can new ernale atable family unit." offer a "stable family un
This approach has the unfortunate effect of reinforeing prevailing negative attitudes toward lesbianism. Because same sex couples cannot marry, they do not. in the eyes of the court, meet a key criterion of stability. The closeted nature of many gay and lesbian relationships, and the absence of census categories that "capture" same-sex relationships, make it difficult to offer statistical evidence of stability, thus compounding commonly held societal prejudices about gays and lesbians.
The lesbian mothers who come closest to success in custody disputes are those who undertake to lead quiet. discreet (i.e. closeted) lives:
who appear to be heterosexual single parents: who indicate that they will be happy if their children are heterosexual. Thus the lesbian or gay parent is expected to ensure that their children will not be exposed to a gay lifestyle and to make their children as "normal" (i.e. heterosexual) as possible. These expectations reinforce the thinly veiled fear of lesbians and gay men in society; that they are predatory. contagious, and flagrant.

## The assumption that

 children can be insulated from homophobia by placing them in the custody of the heterosexual parent is fundamentally flawed.
## -Susan Boyd

To counter this fear, lawyers often cite studies demonstrating that the children of lesbian and gay parents show "normal psychological development: that they show no greater propensity to become lesbian or gay than the children of heterosexual parents: and that they are not more likely to be emotionally harmed or molested.

Most lesbian and gay parents endeavour to shield their children from homophobia. Their ability to do so is. however, limited by the heavy onus on them alone to deal with the effects of a homophobic society. No matter what they do, they cannot alone change homophobic views and discrimination, especially if the other parent is not required to deal in a constructive manner with the issues of sexuality and homophobia.

The assumption that children can be insulated from homophobia by placing them in the custody of the heterosexual parent is fundamentally flawed. As a New Jersey judge said, "the children's. . .discom fiture, if any, comes about not because of living with [their motherl, but because she is their mother, because she is a lesbian. and because the community will not accept her Neither the prejudices of the small community in which they live nor the curiosity of their peers about [herl sexual nature will be abated by a change of custody." If the
heterosexual parent is unable or unwilling to facilitate the acceptance of the lesbian or gay parent in the community and ease the child's path through a homophobic society. giving sole custody to the heterosexual parent may not be in the child's best interests. If a shared/joint custody scenario is planned, whether the heterosexual parent can deal openly with the sexuality issue is a key consideration. If not, then shared parenting, which relies heavily on co-operation between parents, should be rejected.
Being raised by lesbian or gay parents need not have a negative effect on children. In fact, as one American judge said:
"If [the lesbian mother] retains custody. . . this does not necessarily portend that their moral welfare or safety will be jeopardized. It is just as reasonable to expect that [the children] will emerge better equipped to search out their own standards of right and wrong, better able to perceive that the majority is not always correct in its moral judgments, and better able to understand the importance of conforming their beliefs to the requirements of reason and tested knowledge, not the constraints of currently popular sentiment or prejudice.

The judge also pointed to important qualities that would be jeopardized if the children were taken from their mother:
"Instead of forbearance and feelings of protectiveness, it will foster in them a sense of shame for their mother. Instead of courage and the precept that people of integrity do not shrink from bigots, it counsels the easy option of shirking difficult problems and following the course of expedience. Lastly, it diminishes their regard for the rule of human behavior. everywhere accepted, that we do not forsake those to whom we are indebted for love and nurture merely because they are held in low esteem by others.

The legal system might do well to focus on these values when considering the issue of "lesbian or gay custody." In some circumstances, then. it may be important to take the approach of each parent to sexual orientation into account, in order to deal constructively with the effects of homophobia in society.

## People

by staff writers

Michael Burgess, chair of Bioethics at the Centre for Applied Ethics. has been named by Health Canada to the Advisory Committee on the Interim Moratorium on Reproductive Technologies.

The committee will advise Health Canada on compliance with the moratorium and on any follow-up action, track the development of emerging new reproductive and genetic technologies and identify other highly questionable practices for possible inclusion in the moratorium.

The moratorium was announced last July as a first step in the development of a permanent system for managing the application of new reproductive and genetic technologies.

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Jacqueline Rice is the new director of Financial Services Rice, who has worked as an assistant deputy minister with the provincial government since 1988, has extensive financial and administrative experience gained in the private and public sectors and is a chartered accountant.
Prior to joining the provincial civil service in 1982, Rice worked as assist ant deputy treasurer for the Municipality of Surrey, for Revenue Canada Taxation as a business auditor, and a a senior auditor with Peat Marwick Mitchell.


Rice takes over from Acting Director
Gary Barnes March 5. Previous director Terry Sumner is now vice-president. Administration and Finance.

## Leaders of Tomorrow

## Volunteer Recognition Awards Call for nominations

Volunteer Vancouver's Leaders of Tomorrow Awards honour young people aged 12 to 25 for their outstanding voluntary contributions and inspire others to similar service
Other awards open for nomination are: The Volunteer Vancouver Award (sponsor Greystone Properties Ltd.); The Caring Company Award; The Community Service Award (sponsor Bank of Montreal).
Please nominate one or more individuals, groups or companies you feel deserve recognition for their volunteer work. Information and forms available from Volunteer Vancouver at \#201-3102 Main Street or call Jean, 875-9144 or fax 875-0170.
Nomination Deadline: Feb. 23; Volunteer Vancouver
Volunteer Recognition Awards Dinner: April 25.


# Gone fishin' 

Carl Walters takes stock of Canada's fish

## by Charles Ker

Staff writer

Carl Walters noticed passengers staring soon after the ferry left Swartz Bay.
The UBC biologist had attended a public meeting on west coast fisheries the day before in Victoria and was returning to the university to deliver a morning lecture.

Perhaps the stares were imaginary Was something caught in his beard?

Then he saw it. "West Coast fisheries 'on the brink of collapse"' the headline screamed. Underneath was Walters mug shot with an adjoining quote
warning that the Pacific fishery would follow the Atlantic's into oblivion unless drastic changes were made to management and harvesting techniques.

Walters calmly picked up his things and escaped back to his car for the remainder of the voyage.

It's been a year since the release of Walters' report Fish on the Line, written for the non-profit David Suzuki Foundation. Front-page headlines like the one Walters glimpsed on the ferry were repeated in newspapers across Canada. The furor created by the document was certainly not unexpected. Included in the opening pages is the disclaimer: "There are statements in this report that will offend almost everyone who has claimed concern for the future of our fishery."

Says Walters: "I could have written a general state-of-affairs piece instead or

- an honest account about some of the institutional foul-ups I knew were going on. It was a scary chore and I burned a lot of bridges by being honest.

Walters, a faculty member with UBC's Fisheries Centre, is considered one of the best in the business of assessing fish stocks-figuring out how many of what species are living
where-and how to manage stocks safely.

Born in Albuquerque. New Mexico. his family helped settle the Owens Valley in eastern California. Walters grandfather was a sod-busting cattlerancher who took to carrying sticks of dynamite in his saddlebags. The
explosives were meant for the notorious Los Angeles aqueduct, the quintessential case of water resource mismanagement in western North America.

After the aqueduct had successfully diverted water out of their valley. the Walters moved to the small town of Independence, where his grandfather managed a fish hatchery, Carl's father became a fishing guide and Carl just fished.

He got into the academic side of fishing by accident.

Kids from Independence rarely went to college and the town had no college preparatory courses. Carl figured he'd use a baseball scholarship as his ticket to a college degree and an eventual


If Canada's Pacific fishery fails, says Carl Walters, it won't be due to lack of scientific data and knowledge. His next project is the design of a strategic plan for Canada's freshwater sport fisheries.
dream job as a game warden.
"When I got there I discovered that being an academic wasn't so bad and that algebra was actually good fun."

He came to UBC's attention in 1968 A paper he wrote that year was lauded by the American Fisheries Society.
"He significantly advanced the use of computer techniques to simulate fish population dynamics and determine why they vary the way they do," says former vice-president, Research, Peter Larkin, who lured the young scholar to UBC in 1969. "He's the best fisheries modeller in the world and he doesn't hesitate to speak his mind."

In the 1970s, Walters, along with the concept of adaptive management -an idea which uses advanced computer systems to experiment with whole ecosystems in an effort to understand how they behave.

In the case of fish, says Walters. there are so many complicated biologies between the egg stage and when fish finally go out to sea that it is humanly impossible for scientists to study all those biologies piecemeal. The experimental adaptive approach allows for direct manipulation of fish populations to see how they perform when all ecological factors are in place Walters and Hilborn gave about 30 workshops around the world on the concept eventually branching out from
strict ecology research into environ mental management problems including those of forest insects in eastern Canada, rock lobsters in Australia and reindeer herds in Sweden.

Quite apart from getting biolo-gists-many of whom Walters describes as "quantitatively illiterate"-comfortable with
using systems techniques borrowed from the NASA space program, he also promoted a philosophical shift in thought: start by assuming total ignorance, that you're going to make big mistakes and make them in a way that you learn. Adaptive management soon became an institutional buzzword throughout the natural resource sector. In 1991, Walters and Hilborn published what is considered the seminal book on the topic in terms of fish, Quantitative Fisheries Stock Assessment.

The underlying beauty of adaptive management is that it forces scientists to design management policies that are forgiving of the inherent uncertainty of their work: if you treat things as an experiment, you don't commit so whole-heartedly to a course from which you can't back away.

Walters points to the Atlantic fishery as a case in point. Managers of the cod stocks overestimated abundance and committed to an economic development plan that hinged on stocks recovering.

By the time officials realized their models were wrong. everyone was in too deep to admit it.
In the late 1970s, Walters predicted chinook salmon declines in the Georgia Strait. He says bitter opposition from lobby groups made any fish management efforts virtually impossible.

Which brings him back to the Suzuki document.

Critics who labelled Walters an ivory-tower scaremonger following the report's release were silenced a few months later when it was discovered that the Adams River run-the most visible and revered of Canada's salmon fisheries-came perilously close to being wiped out. Only 800,000 of a targeted three million spawners found their way up river through a gauntlet of nets and lines

Walters explains that government managers have failed to understand the limitations on scientists' ability to assess the health of fish populations.
"They keep taking away safeguards and allocating fish to this group and that to the point where we really don't know what's out there," he says. "We have been replacing simple schemes like limiting everyone to one day fishing a week with complicated allotments that create enormous dangers.
"If the Pacific fishery falters, it won't be from lack of scientific data or knowhow: it will be because of institutional failure."

Walters has suggested an end to public subsidization of the industry, the establishment of fish refuges, the creation of local community management authorities and more selective fishing methods to protect species in fisheries geared to individual streams.

Judging by the demands on Walters time, his message seems to getting through.

Topping his list of projects is the design of a strategic plan for Canada's freshwater sport fisheries. He and a colleague from the University of Calgary will use trout populations in several of B.C.'s interior lakes as test cases for a variety of adaptive management techniques. Funded by a $\$ 500,000$ grant from the Natural Sciences and Engineering Research Council they will develop an incentive program to get community lodge owners involved in the science and will work with ministry officials to tackle the problem of fishers flocking to wellstocked lakes.

Sport fishing is one of the fastest growing recreational activities in Canada worth an estimated $\$ 1$ billion annually. Walters says it is in the government's best interest to ensure its continued success.

As for Walters. fly -fishing is his preferred method
"But I'm not religious about it. For me, it's just another way to catch fish.

